

**MATERIALS  
FOR A  
SANTALI GRAMMAR**

**I**

**P. O. BODDING**





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**FOR**  
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**MOSTLY PHONETIC**

**By**  
**THE REV. P. O. BODDING**

**SECOND EDITION**

**DUMKA**

**PUBLISHED BY THE SANTAL MISSION OF THE NORTHERN CHURCHES**

**1930**

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FOR

A SANTALI GRAMMAR

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MOSTLY PHONETIC

PRINTED AT THE SANTAL MISSION PRESS, BENAGARIA.

PRESS PROPRIETOR : THE SANTAL MISSION OF THE NORTHERN CHURCHES.

SECRETARY. : REV R. ROSENLUND.

By

THE REV. P. O. BODOING

Second Edition

DIKKA

Printed by the Santal Mission of the Northern Churches

1139



## Foreword to the first edition.

This book was commenced several years ago and has been written in spare moments which I have been able to snatch from my ordinary work. This will to some extent explain the somewhat uneven treatment of different subjects.

The object has been to render assistance to those who have to learn the Santali language, and at the same time to serve science. As very few of those who learn Santali have had any coaching in phonetics, it has been thought advisable to include some elementary matters which would otherwise have been unnecessary.

The works to which I feel myself especially indebted for assistance are books written by Professor Dr. O. Jespersen, Professor Dr. Joh. Storm, Dr. Henry Sweet and Dr. Paul Passy. The works of these phoneticians treat, however, nearly only of European languages. I have not succeeded in getting any work on modern Indian phonetics, still less on the phonetics of an agglutinating and aboriginal Indian language, so there has been very little to assist in matters which concern such specially. This must be my excuse for the many imperfections and possibly mistakes.

The work has been called "Materials for a Santali Grammar", because I wanted to have more latitude than would have been possible with another title.

It is my intention, if I am spared, to follow this up with another part treating of the grammar proper of the Santali language.

Dumka 22 July 1922.

P. O. Bodding

## Foreword to the second edition.

This second edition is a reprint of the first one, with a very few, mostly formal alterations. The Addenda found at the end of the first edition have been taken into the text with a few necessary alterations. A few additions have been made. To avoid para 114 A para 112 has been made part of para 111, para 112 is the old 113 and the old para 114 is 113. The use of smaller type for the footnotes has made it possible to save a few pages of space. The X-ray photos are printed from the same blocks as those used in the first edition.

The writer desires to express his gratification and sincere thanks for the many encouraging opinions on this present work sent to him from scholars in different countries.

Mohulpahari }  
Santal Parganas } the 13th November 1929.

P. O. Boddington

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## The Santali Letters.

1. In writing or printing Santali we use the following characters :-

**Vowels :**                      *a, ɛ, e, i, o, u.*

„ resultant) : *ɑ, ɛ, ɔ,*

„ (nasalized) : *ā, ē, ǣ, ǝ, ǐ, ō, Ǔ, ū.*

Of these the following diphthong combinations are used :-

*ae, ao, ai, au, ea, eo, eo, ei, eo, ia, io, iu, oa, oe, oe, oi, uā, ui,*

which may all be nasalized ; the sign of nasalization is for the sake of convenience ordinarily put only on the first part of the diphthong, although, of course, the whole combination partakes of the nasalization.

**Consonants :**                      *Glottal : h*

*Velar (guttural) : k, kh, g, gh, ɳ, k̄*

*Palatal : c, ch, j, jh, ɲ, ɟ, ɟ̄*

*Cacuminal (cerebral) : ɕ, ɕh, ɖ, ɖh, ɳ̌, ɽ*

*Dental : t, th, d, dh, n, r, l, ṭ*

*Labial : p, ph, b, bh, m, v, w, p̣*

*Sibilant : s*

2. As is seen, the Roman alphabet is used, with the addition of diacritical marks where necessary. These are, with a few differences and as far as they go, the same as those adopted by the Royal Asiatic Society for Indian languages derived from Sanskrit. The requirements of the Santal language have necessitated some few additions.

The diacritical marks used are the following :

With *vowels* :

- a *circumflex* above a vowel (as in *ā*) signifies nasalization of the vowel sound ;
- a *dash* below a vowel (used with *e* and *o* only) signifies the open vowel sound, as against the closed ;
- a *dot* below a vowel (as in *a*) signifies that the vowel is of the kind which we have temporarily called *resultant*.\*

With *consonants* :

- a *dot* below signifies that the consonant stands for a cacuminal (cerebral) sound (as with *ṭ*) ;
- an *accent* (acc. aigu) shows that the consonant is a palatal (now used only with *ṇ*, previously also with *ṛ*) ;
- a *point* above shows that the consonant is velar or guttural (only in *ṇ*) ;
- an *apostrophe* above or on the right hand top side signifies that the character is a checked consonant (*k, ṭ, t', p'*).

*Note.* Before missionaries met with the Santals no one had tried to reduce their language to writing. The European who first attempted to do this, was, I believe, the Rev. J. Phillips, who lived in Orissa and, having come in contact with Santals, in 1852 published "An Introduction to the Santal language." I have never succeeded in getting even a glimpse of this book and only know it from what is written "based" on this work in Sir W. W. Hunter's *Annals of Rural Bengal*.

Mr. J. Phillips used the Bengali characters, and there are still found some who use these, the object being to make printed matter easily accessible to Santals who know the

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\*All the "ordinary" vowels may become resultant and, when so, ought consequently in strictly correct writing to be written with a dot below. In writing we use the dot only with *a*, sometimes with *o* when it is demanded by necessity, and (very seldom) with *e*. The sounds in question will, however, be mentioned in their place, even if we have not got the type to print them.



Bengali characters. Some sixty years ago I believe all used these for the purpose of writing Santali; it was not long, however, before it was felt, that the Bengali characters left much to be desired. These may be excellent so far as they go; there are separate letters for a number of sounds, where using the Roman alphabet we have to use letter-combinations, or diacritical marks. But when the vowels are to be written and some other, to Bengali foreign, sounds are to be represented, great difficulties arise, because Bengali, or for that matter, any characters derived from the Devanagari alphabet do not easily lend themselves to be used in connection with diacritical marks; and we need more characters than are found.

The missionaries after some experience with the Bengali characters commenced to use the Roman alphabet. The Rev. E. L. Puxley of the C. M. S. edited in 1868 "A Vocabulary of the Santali Language". Here he has "adopted the system of letters employed by Forbes, Shakespear and others for Roman Hindustani," with a few omissions and additions, the latter especially concerned with the checked consonants, the nature of which he apparently did not quite recognize.

In 1873 the Rev. L. O. Skreksrud edited "A Grammar of the Santhal Language", a work which has been the foundation of all later works on this language. Mr. Skreksrud was an excellent linguist and practical phonetician. He had also started using the Bengali characters; in his grammar he has, however, given this up and adopted the Roman alphabet with a number of diacritical marks. The system of transliteration which he then introduced is, with two exception, what we still use. The only differences between the alphabet here given and what Mr. Skreksrud originally used are, that he, at that time, had not adopted *v*, and instead of *c*, he used *ch*, and consequently also *ch'* for *č* (as is still done, e. g., in the Linguistic Survey of India, Vol. IV). He very soon gave up *ch*, for *č*, which we again agreed to discard for *c* (in 1899).

It will be seen, that we use *ñ* and *ñ*, and not the characters recommended by the Royal Asiatic Society for the sounds concerned, *ŋ* and *ñ* respectively ; the cause is, that in writing *ŋ* is so easily confounded with *y*, and *ñ* with *ũ*.

It ought to be mentioned that Mr. Skrefsrud, when he first commenced, was apparently much influenced and guided by Dr. C. R. Lepsius's work "Standard Alphabet" (London and Berlin 1863).

When confronted with the problem of rendering a language like Santali in Roman characters, three ways are open to make up for the insufficiency of the alphabet : (1) to follow the combination method ; (2) to let the Roman characters remain as they are, leaving it to the industry and good ear of the reader to find out what is what ; or (3) to use diacritical marks.

Happily no one has attempted the first as a system, except to express the aspirates, and although the second way mentioned may be the ideal of some, no one has attempted to do entirely without diacritical marks. It is freely acknowledged that the use of diacritical marks is a nuisance ; but till the time comes when our alphabets are perfected so as to have one character for every sound, or anyhow until we get more letters than we at present have, diacritical marks cannot be avoided. They are necessary to prevent misunderstanding and misuse. Whatever may be done or not done in common every-day writing, it is advisable to have the marks in print. The lack of them is the cause of much uncertainty and wrong pronunciation, especially with foreigners, both when reading and speaking the language.

It is a great pity that so much time has been thrown away fighting for or against these diacritical marks, and the curious thing is that the opponents of these are those who show a tendency toward using combinations of characters or towards using superfluous (mute) letters, so it cannot well be the wish to avoid trouble which has been the cause of the



opposition. Some of the old opponents have, however, now given in.

Our system, as at present used, is for practical purposes as near perfection as any alphabet used, although it does not by far satisfy all the requirements of phonetic science. The Santals have a mind much directed towards concrete and special matters. To distinguish in writing between the different sounds is therefore something which is in accordance with their mental character. We have very little trouble in teaching them to write correctly, when they use our system. A better proof of its soundness is not needed.

## Description of the Different Sounds.

### The Vowels.

3. The vowels are without comparison the sounds which on account of their immense variety give most difficulty from a phonetic standpoint; and much which a few years ago was thought ascertained and fixed has now become more or less uncertain. It has not been possible to get Roentgen photographs\*

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\*Long after this had been printed (in the first edition of this work), the writer through the great kindness of Captain (now Lt. Col.) J. A. Shorten, I. M. S., who at that time was in charge of the X-ray department of the Medical College Hospital, Calcutta, succeeded in getting X-ray photographs of the Santal tongue when pronouncing nine different vowels.

The writer took half a dozen Santals with him down to Calcutta for the purpose. Only one of these proved to be of use; the others had their full set of teeth, and this permitted only a small part of the tongue to be seen. The man whose tongue is shown in the photographs reproduced at the end of this book had only a few teeth left and none to interfere with the sight of the tongue. As a guide it may be noted that the teeth seen in the photographs are: in the upper jaw the two right side incisors and the left side canine tooth, in the lower jaw the second incisor and the canine tooth, both on the right side.

taken, nor to procure the recently invented accurately recording instruments. The description given in the text follows the lead of phoneticians like Sweet, Storm and Jespersen; but future researches may show some inaccuracies.

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The Santal, a man by name Sagram Murmu of Mohulpahari, now dead, had been with the writer as a Santal language helper for more than thirty years and had a good and normal pronunciation of his native language.

The whole was to all of us a first experiment with very little to guide us. The writer had provided himself with some silk threads on which small bits of lead had been strung. The idea was to place one of these on the tongue to show its curvature. As the man had to lie down during the operation, these strings could not be used. Captain Shorten then had the man's tongue coated with Bismuth. The plate was placed on the side of the man's face and exposed to the X-rays, whilst he, lying on a couch, pronounced the vowel required.

If other photographs of the same kind should be taken, it might perhaps also be tried to paint only the middle part of the tongue with Bismuth. This might help to bring the curvature of the tongue out. On the other hand it is in some respects an advantage to have the whole surface of the tongue shown as in these photos. There is more wanted to be known than the curvature alone.

The man was asked to pronounce certain mostly monosyllabic words that have the vowels wanted as finals. There was only one exception to this, viz., when he pronounced the *o*; in this case we used a monosyllabic word with a final consonant.

The writer thought this procedure preferable to that of asking the man to simply pronounce a vowel. The vowels vary very much, and it might in this case not be easy to say which one the photo exactly represented. As it was done, we see the position of the tongue when a special, definite vowel is pronounced. It is unnecessary to say, that the man had been somewhat trained in pronouncing the words with the particular vowel in a long drawn way, before the actual operation took place. It is rather strange that he was able to keep his tongue quiet for the whole of the long exposure (about 30 to 40 seconds). As will be seen from the pictures the whole tongue in some cases came out very clearly, much better than we had dared to expect.

Only five of the pictures have been reproduced here in this book. Two of these are of the tongue when vowels peculiar to Santal speech are pronounced; to show the difference between these and the corresponding "ordinary" vowels these last ones have also been shown.



The ordinary Roman alphabet has five vowel characters, which number falls much short of the number of different vowel sounds in actual use in many languages, so also in Santali. In European languages the need of more vowel characters has, in practical writing, been met partly by the use of diacritical marks, partly by the use of combinations of characters. How we have tackled the difficulties in Santali is stated above; and although some of our characters stand for several sounds or a group of sounds, as will be seen later on, we may for all practical purposes be satisfied; but less would be too little.

It will be seen that we do not distinguish between long and short vowels. This has not been found necessary, anyhow not so necessary as to demand diacritical marks in practical writing. Moreover the quantitative value of the vowels seems to change in the same words. Some remarks on this will be found later on.

4. Of vowels we shall first take those that have no distinguishing marks.

*a* is the mid-back-wide sound, with small variations caused by the movement of the tongue as required for the pronunciation of the accompanying consonants. About like *a* in Eng. *father*. It is a little further back than the Danish *a* and a little more forward than the common Norwegian *a*.

*E. g.* *baba* (father, sir), *dal* (strike), *dare* (tree), *rak'* (cry), *ač* (self).

As regards *a* the X-ray photo reproduced shows that the tongue blade is kept in an easy downward curve. The blade is seen to be a little broader than with the resultant vowels. The point (tip) is full, just touching, but not pressed against the root of the lower teeth.

The word used during the operation was *la* (to dig).

*Note*, the short *a* heard in western Hindi and Urdu is not heard in Santali.

*e* has in Santali several values ; it may be the mid-front-narrow *e* (like in the German *See*, or Norw. *fred*), as, *e. g.*, *se* (louse), *edre* (anger) ; or the mid-front-wide *e* (like in Engl. *men*), as in *-en*, *-len* (verbal suffixes). Or it may be a mid-mixed-narrow or mid-mixed-wide sound, as in *eṅgot'* (stoop), *elem celem* (watch for an opportunity), *-kede-* (verbal suffix with infix), *eto* (break in).

Sometimes the *e*- sound becomes so "thin" (*i. e.* the tongue is raised) so as to be heard nearly like an *i*, as in *cele* (who, which), or *-ge* (an emphatic particle). If not attentively listened to, this *e* may be, and often is, mistaken for *i*. This is, however, wrong. But it may be that foreigners have so often pronounced the sound like *i*, that they cannot distinguish the one from the other. It is easy to test the vowel.

Something more will further on be found on this subject (when we reach the resultant vowels).

*i* is the high-front-narrow sound (like German *sie*, Norwegian *is*, French *ile*), in words like *iḷ* (feather), *ir* (reap), or high-front-wide (like in Eng. *bit*), as in *susi* (pretext), *liliqu* (egg on).

X-ray photos of the tongue when pronouncing *e* and *i* were also taken, but have not been reproduced. These show a tongue shape not much different from that of the *ɛ*, except as to the following points. The curvature of the back part of the tongue is very similar in all, but the whole tongue is raised a little higher when pronouncing *e*, and still more so when pronouncing *i*. This is more especially observable in the middle part of the tongue blade.

*o* is mid-back-narrow-round in words like *sor* (near), or mid-back-wide-round in words like *koṛa* (boy), *koṛo* (paddy). Attention is drawn to the fact that the lips are not much protruded; there are, however, individualistic differences in this respect.

The Santal *o* may be compared with the *o* of Norw. *stor*, *rose*, *sol*, or *sort*.

As regards *o* the X-ray photo reproduced shows that the tongue is drawn back and pressed down, the blade showing a peculiar concavity in the middle. The tongue tip is not so full as when pronouncing *a*, and is drawn well back from the front teeth. Note the difference in jaw position when pronouncing *a* and *o*. With *a* the mouth is kept well open, with *o* the lower jaw is raised so there is just an opening between the upper and the lower teeth.

The word used in pronouncing *o* was *lo* (to draw water, lift any fluid up with the help of an instrument).

*u* is the high-back-narrow-round sound (like in French *tour*), as in *ur* (to fly), *ñūr* (fall), *ul* (mango), the high-back-wide-round (like in English *put*), as in *ut'* (swallow), or the high-mixed-narrow-round (like in Norw. *hus*), *burn* (mountain), *hus* (consciousness).

An X-ray photo (not reproduced of the tongue when pronouncing *u* shows a tongue position similar to that of *o*. The lower jaw is however, raised so much as to keep the teeth of the upper and lower jaws very close together, and the tongue point is a little flattened out.

### Vowels with a dash below.

*ē* is the low-front-narrow sound (like in Engl. *air*), as in *ēr* (sow), or low-front-wide, as in *merom* (goat).

As regards *ē* the X-ray photo reproduced shows that the tongue is well raised in a fairly regular curve,



with the front kept against the lower front teeth. The right side lower jaw second incisor and canine tooth can just be seen through the tongue in the photo.

The lower jaw is kept just a trifle lower than when pronouncing *o*.

The word used was *lə* (to melt, dissolve).

*ɔ* is the low-back-narrow-round sound (like in Eng. *law*), as in (*lɔ* burn), *ɔl* (write), or the low-mixed-narrow sound, as in *ɔn ɔne* (there!), or the low-back-wide-round sound (like in Eng. *not*), as in *rɔk* (to butt).

An X-ray photo taken (not reproduced) of the tongue when pronouncing *ɔ* shows similarity to the position for *o*, but the middle part of the point is drawn a little further down and the blade is broader. The whole is more open. The lower jaw is kept lower, not quite so low as when pronouncing *a*.

### Vowels with a dot below.

5. The late Mr. Skrefsrud called these "neutral" vowels, a name which has been objected to. As these vowels are never "original", but only found either as a contraction of a diphthong (with an *i* or an *u* as the second of its component parts), or where an *i* or an *u* is or has been in the same "stress unit", they might perhaps, until a better word is found, be called *resultant*.\* This does not describe the sounds, but gives a peculiar and constant characteristic of them all.

We have not, so far as I know, any of these vowels in our European languages, but we have sounds which in my hearing seem to be not very, although somewhat, different. It is instructive to observe, that English people who commence learning Santali are liable to mix the *ɑ* up with the sound of the vowel in words like *hut*; and that Scandinavians are

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\*Some phoneticians who have reviewed the first edition of this work agree to the use of *resultant*.

liable to think they pronounce the same vowel when they use *ö* (e. g. in *dör*).

In practical writing as a rule only one of these vowels is marked, viz. *a*; the *a* is easily distinguished, and is of very frequent occurrence.

In a few words it is necessary also to mark the *o* in the same way (*o*) to avoid confusion. The other resultant vowels are scarcely ever marked in practical writing; they are also much more difficult to hear, if one is not accustomed to listen for them; still they are there.

One seems, when pronouncing these vowels, to have a feeling that the back or root of the tongue is somewhat raised, and that these sounds have their starting point a little further back in the mouth than the corresponding ordinary vowels. There are some movements of the tongue and possibly of the soft palate too far back to be observed by the eye; but to attempt a description trusting to one's feeling, I am afraid, might be deceptive. To make an exact definition of these vowel-sounds possible it is necessary to have Roentgen photographs, and we have since above was first printed been fortunate enough to secure such photos of two of these resultant vowels.

*a* seems to be a modified high-back-narrow sound in words like *aŋ* (straw), *həl* (iron tire), *dhũl* (smoke), or a modified mid-back-narrow sound in words like *iä* (so and so), or a modified low-mixed-narrow sound in words like *kami* (work).

*a* thus represents several sounds. It is unrounded. If one observes a Santal pronounce *hal* (moisture in soil) and *hqi* in succession, he will in pronouncing *həl* generally be seen to reduce the mouth opening which he had with *hal*, by raising the jaw a little.

If a Scandinavian has any real difficulty with the pronunciation of *a*, he should use *a* and not the *ö* of Danish

or Norwegian, e. g. say *mali* rather than *möli*; *ö* is a sound foreign to Santali.

*e* seems to be a modified low-front-narrow sound, in words like *jiret'* (life), *ilet'* (plaster over), as pronounced by many.

*ɛ* seems to be a modified mid-mixed-narrow sound, in words like *ɛi* (interj.), as pronounced by some.

*i* seems to be a modified high-mixed-narrow sound, as the first vowel in *bhid̪i* (sheep), as pronounced by some.

*o* seems to be a modified mid-back-narrow-round sound. Besides *a* this is the one most easily distinguished by the ear among the resultant vowels, and the only one besides *a* which it is necessary to mark. It is found in words like *kol* (the Indian cuckoo), to be distinguished from *kol* (to send) and *kol* (machinery); *ol* (mouldy) different from *ol* (to write); *ho* interj. (different from another interj. *ho*); *go* (addressing wife's or husband's elder brother) to be distinguished from *go* (mother).

*u* modified high-mixed-narrow-round, heard in words like *uni* (he, she), as spoken by many.

The photos of the tongue when pronouncing the two resultant vowels *a* and *o* were those first taken and are those which came best out. This is fortunate in so far as these are vowels peculiar to the Santal language.

As regards both it will be observed that the tongue viewed from the side takes a peculiar shape, something like part of a ball. The tongue is drawn back with a peculiar flatness or even slight concavity at the back. The tongue point is considerably narrower than when pronouncing *a*.

It will be seen, that when pronouncing *a* the tongue tip is kept curved down backwards and low, just touching the part of the mouth below the tongue.



When pronouncing *o* the tongue shows the same peculiar ball-form and flatness at the back, but the front of the tongue is somewhat raised, so the tip is kept at about the height of the lower front teeth, but without touching.

The words used were for *a ruā* (fever) and for *o kōl* (the name of the Indian cuckoo).

6. It will be observed that these vowels are "narrow"; the tongue is tense; but when the vowel has no stress, the tongue may be somewhat lax; *o* and *u* are rounded.

7. The "resultant" vowels are in some cases substituted by ordinary ones, so words may have two forms; thus besides *mucāt* (end) may be heard *mucet*; *huā hukā* (the call of jackals) and *hue huke* are both common; for *bheḍi* (sheep, so originally) *bhiḍi* is now generally heard; *kāṭhin* (difficult) and *kūṭhin* are both found. And so on.

In a number of words where according to Santal phonetic laws one would expect to hear these vowels they are not used; they have become ordinary ones of the kind which go in pair with *i* or *u*. See below where the harmonic sequence is mentioned.

It may be a mistake, but one gets an impression, that Santals who have got some school education, and consequently have had much to do with other languages,\* which fall very far behind Santali as to vowel-sensitiveness, have lost some of this sensitiveness and, except for the *a* and *o*, do not use the resultant vowels.

8. With regard to *rounding* it may be noted, that the Santals do not carry this to extremes. One seems to observe a more distinct rounding and even some protruding with some individuals, and much less rounding with others. Those

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\*All school education, except that of the infant classes, is in Hindi or Bengali.

with thin lips seem to have a less rounded speech than those with full lips. This may be directly due to the shape of the lips.

9. With reference to the vowels it should be borne in mind that the definitions attempted (on the whole following the Bell Sweet way of description) do not exhaust the Santal vowel sounds. There is a number of not mentioned varieties.

It should be further noted that the vowels of the same word by no means always have the same sound. The law of harmonic sequence is constantly felt; neighbouring vowels which are under the same "stress regimen", influence one another very strongly. Take the word *em* (give) where the *e* is l. f. n. (e. g. *emək*<sup>h</sup>, *em akat*); this is altered to *e* (m. f. w.) in forms like *emaeme*, *emadeae*, and even to *i* (h. f. w. in a form *iman*). On this more will be said later on.\*

### Nasalization.

10. Every vowel in Santali may be nasalized; a nasalized vowel is shown in writing or print by the circumflex above the character.

The nasalization is produced by lowering the soft palate (*velum palati*) and thus permitting part of the air to escape through the nose. It is the same sound as of that which is written *an*, *on*, etc., in French, which, however, has got fewer "*voyelles nasales*" than Santali has. E. g., *āt* (zeal), *mēt'*, (eye), *ērṅo* (a forest mouse), *mōrē* (five), *dhṛṛū*

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\*To avoid misunderstanding it ought to be mentioned that we in our printed Santali do not use the marked vowels *ē* and *ō* in the personal pronouns, in postpositions and in verbal suffixes. The reason for this is an agreement we made with representatives of the other Santal Missions in 1899. We agreed to this inconsequence to try to get some uniformity in spelling. This much may be said in favour of this way of spelling, that the words in question are not very many and may be easily learnt, and that the law of harmonic sequence often alters the vowel sounds of these particular words, so they would in accurate writing have to be differently spelt, sometimes *ē*, then *e* and even *i*, and *ō*, *o* and even *u*.

(animal with young), *dhũũ* (smoke), *hũrũ* (the hanuman monkey).

11. The nasalization is not always equally marked ; the soft palate may be more or less lowered.

It may happen that the nasalization is as little pronounced as in the kind of nasalization heard, *e. g.*, in Danish in words like *mine*. Probably this is the cause of some writers not marking the nasalization in words where it really is.

As a curiosity it may be mentioned, that it is not uncommon to hear Santals sing "through the nose", so to say nasalizing their whole speech. This phenomenon is frequently observed, especially with men (much more seldom with women) when some one is singing alone. On the other hand no nasal twang is heard in ordinary speech.

### Diphthongs.

12. The *Diphthongs* are of three kinds :

(1) *Descending* or *after-glide* diphthongs, where the first vowel has the greater part of the tone-length required for pronouncing the diphthong.

(2) *Ascending* or *fore-glide* diphthongs, where the second vowel is the predominating one.

(3) *Level-gliding* ("svævende"), where both vowels seem to be equally strong.

13. Santali has all three kinds ; there is, however, a difference between our North European diphthongs and the Santali ones. With us it is often the case, that one of the vowels does not get its due ; one vowel is fully pronounced, whilst the organs of speech are permitted to do only part of what is necessary to properly pronounce the other vowel ; the rest is left more or less to the imagination. Such is not the case in Santali. Both vowels are pronounced, and the Santali diphthongs differ thus much from ours.

This peculiarity of the Santal diphthongs is conform with the mode of pronunciation peculiar to the language.



Santali is not accentuating like our languages. Every syllable and every part of a syllable has to be distinctly pronounced. Nothing is "swallowed" or made inaudible through excessive force applied to any syllable or part of it.

14. To the first class, the descending diphthongs, belong most of the Santali ones.

Thus :

*ae* in words like *ae* (estimate), *āe* (weak), *aema* (many).

*ao* in *hao* (a kind of red ants), *āora* (youthful), *benao* (make, prepare).

*ai* in *bai* (convulsions), *āiṭha* (remains), *aimai* (woman).

*au* in words like *auri* (afterwards), *bujḥau* (understand), *āuk āuk* (onomatop. about the call of the bull-frog); in this last as in some other words also the *u* is really resultant).

*eo* in *eora* (to wind the thread round the spindle), *leoḥa* (stir together), *beoḥar* (courtesy, manners).

*eo* in *leoṭhe* (cling to), *dh̄or̄ē* (attach oneself to).

*ei* in *ei* (listen!).

*eo* in *dheo* (wave).

*iu* in *jiu* (spirit) (as pronounced by some).

*oe* in *hoe* (become). It is faulty to write this *oi*.

*oe* in *h̄oe* (wind), *roḥoe* (plant).

*oi* in *hoi*, *oi* (yes!)

*ui* in *uiḥar* (fond remembrance), *kūi* (well).

15. To the second class may be counted the following diphthongs :

*ea* (when suffixed to a word) *henda-ea* (generally *henda-ya*) (listen, boy), *barea* (two), *ponea* (four).

*ia* in words like *pahariā* (hill man), *kurhiā* (lazy).

*oa* in word like *manoa* (mankind), *oar* (rescue).

*ua* in words like *ras marua* (half dry), *sikuar* (strings suspended from a yoke).

*vi* in words like *kūinḍi* (kernel of the mohua fruit).

In this class of diphthongs the first vowel, especially when not found commencing a word, is often heard like the corresponding semi-vowel (y or w), e. g., *manwa*, *hen-da-ya*.

16. The third kind is found mostly in the diphthongs written as those of the second class, but differently pronounced :

*ea* in *hanharea* (mother-in-law and son-or daughter-in-law).

*iā* in words like *iā* (so and so, what-do-you-call-it).

*io* in words like *pīo* (the Indian black headed oriol).

*iū* in *jīu*, as pronounced by most.

*oa* in words like *oakhep* (consider).

*uā* in words like *ruā* (ill), *dhūĩ* (smoke).

This last class is not, however, always pronounced as one diphthong ; they are frequently, some of them generally, dissolved into two distinct syllables with a euphonic semi-vowel between the syllables, corresponding to the first vowel (*i-y-ā*, *ru-w-ā*). When this is done, the euphonic semi-vowel forms with both the first and the second vowel sound combinations which come closer to the Scandinavian or West-European diphthongs than the ordinary Santal diphthongs. Something more about this insertion of a euphonic semi-vowel will be found later on.

17. Having the above mentioned peculiarities of the Santal diphthongs in mind they cannot well be said to be pronounced like such and such European diphthongs, but they may be compared with such.

*ae* is somewhat like *ai* in Norw. *hai*, only that both vowels are longer, somewhat more like the American *i* in *fine*.

*ao* may be compared with the sound in Norw. *sarve*, only the second vowel is a full vowel.

*au* may be compared with the Eng. sound in *how*, *out*

or the Norwegian *au*, *auge*; the Santal sound is, however, a little further back (it is somewhat different from the German sound in *Haus*).

*ea* compare Eng. *yard*, Dan. *ja*.

*ei* compare Norw. *seile*.

*iu* compare Norw. *stirne*.

*oe* may be compared with the sound in Eng. *boy*.

*oa* compare Fr. *Loire*, Norw. *roa*.

### **Triphthongs.**

18. Santali has combinations of three or even more vowels. These may be true triphthongs; but generally these vowel combinations are pronounced as diphthongs joined to a vowel or another diphthong with the help of a euphonic semi vowel.

*E. g.*, *eaē* (seven), often pronounced *eyae*; *joao* (mature, established); *ri<sup>a</sup>u* (invite to come along); *ba<sup>a</sup>ueok* (be known), *k<sup>o</sup>eeae* (he will ask him), generally written *k<sup>o</sup>eyae*; *k<sup>o</sup>eeae* (he will ask for him).

### **Harmonic Sequence.**

19. We shall now discuss what is called the *harmonic sequence* of vowels.

The Santals are, as a whole, a musical race, much more so than most of the surrounding peoples. I suppose this quality has something to do with the tendency of their language to harmonize the vowels within the stress-unit.

When the expression *stress-unit* is used, it is meant to denote the syllables which, in speaking, together form a unit in this way, that they influence, or are influenced by, one another and belong to the same unchecked air breathing. It is often one (also even monosyllabic) word, and often only a part of a word. The language is not, as already mentioned, accentuating (like our languages); there is in the ordinary speech no



“rolling”; the vowels of the syllables have often a nearly equal length (which, however, in the same words may in actual time-length vary very much according to circumstances), but one of them has a little more stress laid on it than the other, is a little longer, or the other is a little shorter, whatever it may be. Or one is long and the other short.

With a European learning to speak the Santal language one great difficulty is to get away from the European system of accentuation, especially the system of intonation of one's own native language.

20. Certain vowels cannot in Santali stand together in the same “stress-unit”; one (or more) of them must be altered to a vowel which can go in pair with the other. Sometimes the vowel which has the stress remains intact and the other (or others) are altered; sometimes the stress-vowel is altered, when it is felt undesirable to alter the others; sometimes all vowels are “harmonized” (this latter may be the case with resultant vowels).

The influence of a vowel is felt both forwards and backwards, but generally only inside the stress-unit.

In certain cases to which attention will be drawn below the harmonizing influence is felt also outside, a syllable forming an enlarged unit with what has here been called the stress-unit.

21. We shall first deal with the very peculiar and conspicuous influence of the two vowels *i* and *u*.

An *i* or an *u* makes the other vowel or vowels of the stress-unit “resultant”.\*

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\* It was remarked above (*vide* description of *e*) that some people by mistake write *i* for *e*. This is especially the case in the emphatic particle *ge* and in the diphthongs *ae* and *oe*. If it was an *i*, the accompanying vowels would become resultant

*E. g.*, *ina* (pr. dem.), *ia* (so and so), *kami* (work), *kali* (ink), *kārchu* (a ladle), *dhūñ* (smoke), *rua* (sick), *Sukol* (a name), *bāora* (male dwarf), *bāuri* (female dwarf), *āonda āundi* (anxiously).

A very large number of Santal words end in *ao* or *au*; most of these words are loan words from some form of Hindi, where the sound is *ao*. *Ao* is kept in Santali where the vowel of the first part of a word is any other than *i* or *u* or a resultant vowel. With one of these it is changed to *au*; *e. g.* *manao*, *benao*, *jorao*, but *bhirau*, *bujhau*, *ramjau*.

22. The resultant vowel is kept on, even if the *i* or the *u*, which is the cause of it, is omitted in the present-day form of the word. It is curious that words of this kind constantly heard pronounced by those from whose language they are borrowed, generally with a mid-back *a*, are still by the Santals invariably pronounced with the resultant *a*.

*E. g.*, *jat* (caste, race) from *jati* (Skr. जाती), *cār* (four) from *cari* (चारि), *ḍan* (a witch) from Hindi डाइन (Skr. डाकिनी), *kol* (the Indian cuckoo) from Hindi कोइल (Skr. कोकिला), *ar* paddy-straw) from *Deshi* Bengali আউড় †, *ḍar* (run), cf. Hindi दौड़, *ḍad* (ringworm), Hindi दाद, but Skr. दद्रु (it may not, however, be necessary to go so far to explain the *a*; in Bengali দাদী and দাড়া are found); *an* (law) from Persian آنین; *ad* (remote past) from Hindi आदि, *bahla* (barren) from Hindi बहिला.

*Kaldas*, from *Kalidas*, in Santali also *Kalidas* (a common Indian name). The last form (two stress-units) is the

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which they do not; this is proof positive that the sound is *e* and not *i*.

† This word is not found in literary Bengali, but is used by the peasants of Birbhum and the adjacent districts.

“correct” Santali pronunciation ; *Kaldas* (one stress-unit) is the ordinary form, both vowels being resultant. *Raska* (a name) from Hindi (Skr.) रसिका ; a side-form *Rusik* is also heard ; from this word *raska* (joy) is probably also derived. Two other Santal men’s names may be cited as examples ; the name *Raghunath* in Santali becomes *Righu* or *Ragnat* ; *Baidyanath* becomes *Bajnat*.

Many of these word are, as is seen, borrowed from other languages, where the word in question has an *i* or an *u*, either in the syllable following, or as second vowel of a diphthong. With regard to these last cases the reader is referred to what is written on diphthongs further on.

23. A similar phenomenon is constantly met with in genuine Santal words when the first person singular of the personal pronoun (*iñ*) is joined to a word ending in a vowel. The *i* is eliminated, and the vowel to which the *-ñ* is suffixed becomes resultant. This happens when this *-ñ* is suffixed to the negation *ba-*, to the finite *-a* of the verb, to the *a* of the infixed indirect object, and also in other cases where the *-iñ* is suffixed to words ending in *a*. \*

Thus : *ba-ñ* (not I), *cala<sup>k</sup>-a-ñ* (I shall go) ; *dul-añ-me*

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\*When it has been stated that the consonant *ñ* has the same influence as *i* or *u*, this is a misunderstanding ; it is not the consonant which causes the *a* in compositions like *bañ* (not I), *minañ* (I am), etc, but the *i* eliminated from the word *iñ*, of which *ñ* is the remnant ; if this were otherwise, we might expect *ñ* always to cause resultance of the vowel ; but it occurs only when the *ñ* is the abridged form of the pron. first pers. sing.

It may be *bañ* (not I), but always is *bañj* (spoil), *bañjha barren*), *bañcao* (save), *mañj* (heart of tree), *mañjan* (midday meal), *sañj* (a meal), etc.

It is unnecessary to point out that there is no *i* in the consonant *ñ*.



(pour out for me) ; *imañme* (give me) ; *minaña* (I am present).

It should, however, be remarked, that the resultant *a* is by no means always used in these contractions ; *a* is used instead. This is more especially the case with the finite *a*. The examples given are often heard pronounced *bañ*, *calakañ*, *dulañme*, *emañme*, *menaña*. Women are heard using this *añ* more frequently than men. A possible explanation of this double pronunciation, will be found later on (*vide* para 29).

24. There is a general tendency in formed composite words to let the resultant vowel, if it is *e* or *i* become *i*, and *u*, if it is *o*. This tendency is apparently more and more becoming the rule in the language.

*E. g.* *bhidi* (a sheep) for *bheḍi* ; *kuṛi* (girl) for *koṛi*.

25. An *a* is sometimes found substituted by *e* or *u* ; *e. g.*, *mucet'* besides *mucat'* (end), *kucel* (turn or bend of a river) besides *kucal* ; *kuṭhin* (difficult) besides *kaṭhin*.

With reference to the class of words to which the two last mentioned examples belong, the change of vowel may be due to the form of the word used by Bihari speaking people with whom the Santals come in constant contact. These are very frequently borrowed words.

26. To influence, and be influenced in the way described the vowels must belong to the same stress-unit, as remarked above. If the stress-unit is dissolved into two such units, in such a way that the second syllable, having *i* or *u*, becomes a separate stress-unit, the influence is broken, and the original vowel of the first syllable is restituted. This is especially to be noted in word-formations, where dissyllabic words through an infixed consonant and vowel repetition become three-syllabic ; *e. g.*, *aṅgir* (elope), but *apaṅgir* (reciprocal form) ; *taṅgi* (wait for), but *tapaṅgi* (recipr. form) ; *aṣul* (support), but *apasul* (recipr. form) ; *aḥur* (turn),

but *anacur* (a turning).\*

The same may be observed also in other formations, ep. *bilat* (Europe), but *belati* or *bilati* (European), according to stress.

As the stress-unit is not dissolved, this rule does not apply to monosyllabic words when these in the way described become dissyllabic ;

nor does it apply to dissyllabic words when the stress-unit, if dissolved, is dissolved in such a way that the syllable with *i* or *u* does not become a separate stress-unit by itself.

This last is specially to be observed in the verbal construction with reduplication or an inserted *k* (performative form) or *p* (reciprocal form).

Thus : *lai* (tell), *lalai*, *lapai* ; *agu* (bring), *ak'agu* ; *hahān*, from *hān* (harm) ; *ak'āngir*.

They say *lapāngi*, but would say *talāngi*. Forms like the last are, however, avoided or even declared impossible, the parallel form with an inserted *k* being used (as *tal'āngi*).

Dissyllabic words ending in *-ai* do not follow above mentioned rule. It is *laparhāi* (from *larhāi*, fight) and not *laparhāi*, *kāpamhāi* from *kāmhāi* (hinder) and not *kāpamhāi*.

Dissyllabic words having *i* or *u* as the vowel of the first syllable keep the resultant vowel of the second syllable in the reciprocal and analogous forms. Thus : *hipiskā* (from *hiskā*, envy), *dupulār* (from *dulār*, love).

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\*When excited, especially in a pleasant frame of mind, a Santal may sometimes be heard substituting for the resultant *a* an ordinary (mid-back or even low-back) *a*, putting an extraordinary stress on this,

E. g. *ru-ar-ēnae* (for *ruārenae*), *du-lar-kedeae* (for *dulārkedae*).

The explanation is possibly that the last syllable is not in such words, as to stress, entirely separated from the preceding syllables; there is an enlarged unit.

27. In jingles where the real word has a resultant vowel, this is naturally retained; *e. g.*, *jať* (race), *jať pať*.

28. It may be of importance for the proper understanding of the real composition of words to observe how far the influence is felt. If it is not felt, it is a sign that we have to do with a composite word with really two stress-units; *e. g.*, *caukať* (door-frame, two units), not *caukat*; on the other hand *cauka* (100 cubic feet); *aughat* (dilemma, two units), *aguadar* (forerunner, two units); *aurqha* (thoughtless, two units), *cikisa* (tend, two units), *bhelaonđi* (sheep and goat dung), *bhagan* (fortunate, two units), but *bhaganić* (on acc. of the -ić).

The animate suffix -ić does not cause resultant vowels when it does not melt into one stress-unit with the syllable to which it is suffixed; it is, *e. g.*, *cekan-ić* (what kind of person), *ae-ić* (estimator); but it will make the vowel of the suffix -an resultant, -*anic'*.

29. The *i* of the personal pronoun in the first person singular (*iń*) requires some further remarks.

When this *iń* is used as a direct object infix in connection with monosyllabic verbs, the *i* is changed to *e*.

Something of the same kind apparently happens with most dissyllabic verbs ending in the influenceable vowels *a*, *ę*, *e*, *o*. and *o*. When the direct object infix -*ń* is added, we should expect the *a*, etc., to become resultant, like what happens with *bań*, *minań* and the like (see para 22 and para 23), if the eliminated vowel were *i*. As no resultance takes place, we seem to have also in these cases to presuppose a form *eń*.

Examples: *dal-eń-ae* (he will strike me), not *dal-iń-ae*,

which would have to be pronounced *dal-iń-ae*, and that would mean, "he will make split peas of me"; *ńel-eń-kanæ* (he is seeing me); with *iń* it might be liable to be pronounced *ńil-iń-kanæ*.

Further : *laga-ń-kanæ* (he is driving me away), *ęę-ń-ae* (he will deceive me), *ārgo-ń-me* (take me down), *dq-hq-ń-me* (put me down), not *ereń*, or *iřiń*, *ĩrguń*, *doloń*, *lagań*, as might be expected, if the eliminated vowel were *i*.

The emphasis is put on the *eń*, or in dissyllabic words, on the vowel to which the *-ń* is joined, and this forms one stress-unit with the verbal base.

It might seem, as if the here discussed influence of *i* is so strong, that the *i*-form is changed to a form with *e*, when it is undesirable to have the resultant vowel.

We, however, also find that this *iń* is changed into *eń*, in certain cases when the here discussed phonetic rule would seem to demand *iń*, and not *eń*; e. g., *gur-eń-ae* (he will fell me) is used, and not *gur-iń-ae*; *hqr-eń-ae* (he will vanquish me), not *hqr iń-ae*, which might be expected. Further : *ńum-eń æ* (he will mention me), not *ńum-iń-ae*. The *e* is in such cases frequently pronounced resultant, especially when the vowel of the base is *i* or *u*.

The most likely explanation of the change in form here mentioned may therefore be, that we have to do with two parallel forms of the personal pronoun, one with *i* and one with *e*. \*

30. The change mentioned does not take place with dissyl-

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\* One finds in Santali instances of double-forms of the same word, where the only difference is the different vowel, and where the one form is used nearly exclusively in certain instances and the other as exclusively in others. We have, e. g., *gujuķ* (to die, which presupposes a form *guč* or *guju*, which is never heard) used in certain tenses, and otherwise only *gqč* (with incorrectly speaking individuals, or as a *lapsus linguae*, *gqjoķ* may be heard but very



labic bases ending in a consonant, nor does anything similar happen with infixes which commence with a consonant. In these cases we have two or more stress-units (e. g., *ñu-tum-iñ-ae*, *dal kiñ-ae*).

After this lengthy discussion of the the resultant vowels and matters connected with them we shall see, how the demands for harmonic sequence show themselves in Santali.

31. We find that the *resultant vowels* will go with *i* and *u* and other resultant vowels inside the same stress unit, but not with the other vowels. See examples above.

32. *I* will go with the resultant vowels and with *i* and *u*, also with *e* and *o*, but not with *a*.

Cf. examples above, and further : *bita* (a span) ; *pitel'* (clean cotton with a bow) ; *idi* (take away) ; *miru* (parakeet) ; *pitonj* (a certain tree) ; *pilhoi* (spleen in cattle) ; *ricot' rəcot'* (clatter)† ; *piq* (the Indian blackheaded oriole).

33. What was remarked about *i* will hold good with *u*. E. g., *buhel* (gush out) ; *buhi* (a manuscript, written book) ; *buka* (navel) ; *duloʼ* (to be poured out).

34. There is, analogous to what was stated in para 24 regarding the resultant vowels, a strong tendency in composite words with *i* or *u* as the vowel of one of the component parts to let *e* and *o* become *i* or *u* respectively.

E. g., *dibi* (a goddess, especially Durga) from II. देवी ;

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seldom) ; further, *hijuk* (to come, from a non-existing *hič* or possibly *hiju*) and *heč*.

The third pers. sing. of the abbreviated personal pronoun, used as a direct object infix or as verbal subject, furnishes a parallel. This is likely originally *-i* (*vide* para 36).

† As to this very common vowel series (*i-o* *o-o*, see para 45) some people may be heard to use *i-o* ; this is likely brought about by the general influence of Bengali ; it is heard more than elsewhere among those living on the borders of Bengal. *i-o* was possibly originally *i-a*.

*kubi* (cabbages) from H. कोबी; *tikit* (Engl. ticket), *tiki's* (from Engl. tickets, but in Santali singularis).

This phenomenon may be especially observed in connection with the demonstrative pronouns; there may, however, be some doubt as to the original form of some of the demonstrative elements, whether there have not been parallel forms.

Comp. *inkin* (for *enkin*, those two), *uni* (for *oni*, he), *nukin* (for *nokin*, those two).

35. *A* goes with *a*, *e*, *ē*, *o* and *o*, but not with *i* or *u* or the resultant vowels with which it has to become resultant; *a* absolutely prefers *a*, *e* and *o*, but *ē* and *o* also occur (especially when the *ē* or *o* has the emphasis, and in words recently borrowed from Bengali).

E. g., *matalok'* (become intoxicated), *dare* (strength), *Dharg* (a name), *aḍok* (hid behind), *tṛāhēt'* (mimic); *ona* (that), *noa* (this), *onka* (so), *nonka* (thus); *gaḍor* (sluggish).

36. *E* will go with all except *e*, and the resultant vowels, but the tendency is for it to go with *ē*, and *o*; with *a*, *e* and *o* *ē* is itself liable to change into *e*.

E. g., *dāṛē* (sacrificial animal), *bakhēr* (invocation of spirits), *erē* (deceive), *ērre benḍe* (smile), *erṇgot'* (ear wax), *roṭe* (a frog); *onteye calaoena*, he went there), but *onateye calaoena* (so he went away); *er-a-ko* (they will sow, two stress units), but *erako* (wives); *nel-e-pe* (see him you), but *idi-ye-pe* (take him away).

*E* is sometimes found with *i* and *u*, specially if the *ē* has the emphasis: *ileṭ'* (plaster over), *ruhet'* (scold), *ruhen* (a certain tree).\*

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\*It may be that in exceptional vowel-sequences the cause of the breaking of the general rule is the loosening of the stress unit, so one gets nearer two units than one, thus *ru het'*, but also *ruhet'* (one unit).

*E* is apparently the most sensitive and most easily affected of all the vowels, and is influenced even outside its own stress-unit, and has itself little power to influence other vowels.

37. *E* goes with *a*, *e*, *i*, *o* and *u* :

*era* (wife), *dare* (tree), *epel* (threaten by gesture), *eto* (break in), *sure* (rice and meat hash), *bides* (alien).

With *i* and *u* the *e* is properly *ə*.

38. *O* goes specially with *ə* and *ə*, but also (mostly in borrowed words) with *a* and *i* :

*gəṛē* (a sack), *gorə* (help) ; *əhma* (guess), *sədm* (horse), *akər* (difficult), *bakəs* (*Justicia Gendarussa*), *sirə sorə* (bleeding ; this last is, however, not quite standard pronunciation, vide footnote to para 32).

It is liable to become *o* with *a*, cp. *odəl bədəl*, but *odla bodla*, in exchange) ; *borat* and *bərat* (give an order), *bhorsa* besides *bhərsa* or (rarely) *bhərsəsa* (trust).

In words like *nyrkər* (cocos palm, from a rustic form of Beng. নারিকেল) we have double stress (two units).

39. *O* goes with *a*, *e*, *o*, also *i* and *u* :

*ato* (village), *ota* (press down), *eto* (break in), *ore* or (thoroughly), *orlo* (a fool), *pio* (the Indian blackheaded oriole), *poi* (penalty, really both vowels resultant).

With *i* and *u* it is properly *ə*, or changed to *u*.

40. The abridged personal pronoun of the third person singular and some of the verbal suffixes are constantly occurring good examples of how the law of harmonic sequence acts in Santali.

The original form of the pronoun mentioned is possibly *i* (cp. the demonstrative *un-i* and the animate determinative suffix *-id*). Women, who generally represent a more archaic form of speech, may now and then be heard to use *i* as

the subject pronoun even after the finite *a*, especially when resultant vowels are found in the immediately preceding verbal base, e. g., *l̥ai-ai* for *l̥ai-ae* (he will tell).

The ordinary form is a variety of *ɛ* or *e*, both when used as the verbal subject and as the infixed direct object, the pronunciation depending on the neighbouring vowel. With indirect object the form is always *e* (*ae*). When the subject pronoun of the 3. p. sing. added to a word with final *a* or *u* forms a diphthong with this vowel, it always is *i* (*ai* or *ui*).

It is, however, possible that we also here may have two parallel forms, an *i* or an *ɛ* (*ɛ*), which would explain the difference.

E. g., *ɛrɛ-y-ɛ r̥ɔra* (he lies), *sari-y-e r̥ɔra* (he tells the truth), *bogege-y-e n̥ɛl led-e-a* (he saw him well), *bindi-y-e n̥ɛl-keɛ-e-a* (he saw a spider), *rui-y-e jarwa-keɛ'-a* (he gathered tree cotton), *ba-e r̥ɔra* (he won't speak), *hoɾo-e r̥ohɔe-a* (she will plant rice), *h̥ɛr̥ũ-i d̥ar-keɛ'-a* (the hanuman monkey ran away), *kh̥irua-i k̥ir̥iñ keɛ'-a* (he bought a water melon).

With regard to the two last examples, if, as is frequently done, no diphthong is formed, but the subject pronoun is suffixed with the help of a euphonic semivowel, we get two stress-units and the pronoun used is always *ɛ* or *e*: *hoɾo-y-e r̥ohɔea*, *h̥ɛr̥ũ-y-e d̥arkeɛ'a*, *kh̥irua-y-e k̥ir̥iñkeɛ'a*.

41. The verbal suffixes with an *e*-sound as their vowel vary in pronunciation very much in the same way. When one of these suffixes is pronounced alone, the vowel-sound is generally *ɛ*; with another vowel in the same stress-unit, this *ɛ* is more or less modified so as to be pronounced *e* or even *i*.

Thus: *-keɛ'*, *ɛr̥ekeɛ'*; but, *-keɛ'-ae*, *-keɛ'-ko ae*, *-keɛ' -e-ae*; *-kid-iñ-ae*; *leɛ'*, *-leɛ'*, *-lid-*; *eɛ'*, *-eɛ'*, *-id-*; *-ɛn*, *-en*; *-leɛn*, *-len*; *-le*, *-li* (*n̥*); *-ke*, *-ke*, *-ki* (*n̥*). In *liñ* and *kiñ* the explanation, however, probably is elimination of the vowel of the verbal suffix.



In the Indeterminate (or Future) of a verb with final single vowel an *-e* or *-i* is suffixed to the base, when it functions as an active verb with direct inanimate object. When the final vowel is *a*, *o* or *u* this suffix is *e*, when *ə* or *u* it is always *i*; thus, *rara-e*, *lo-e*, *lɔ-e* but *ika-i*, *agu-i*.

The postpositions *te* and *re* show the same tendency, the vowel varying from *e* to *e* and *i*; thus: *hɔrtɛ*, *hɔrtən* *hɔtetɛ*, *hɔrre*, *hɔrren*; *onate*, *-kate*, *orakre*, *orakren*, *-teko*, *-tikin*; *riniɛ* (from *ren-iɛ*, his one, used to signify a wife).

42. The verbal suffix for Medium in the Indeterminate (Future) and from this formed tenses of the verb (*-ok*) in an analogous way constantly varies according to the base vowel; from *-ɔk* (when the vowel of the verb is *e* or *u*, as in *emɔk*, *ɔlɔk*, *lebedɔk*) to *-ok* (with all other vowels, *e. g.*, *adok*, *relɔk*, *ilok*, *sorok*, *ũurok*, and even *uk* (after *u*). *Guruk* (for *gurok*, fall), *umuk* (for *umok*, bathe) and similar forms are often heard. I am not certain that I have not heard these previously; but my attention had not been drawn to them earlier than a few years ago.

43. The diphthongs give a fair indication of how the different vowels may be paired.

44. Santali makes constant use of infixed consonants \* and of reduplication of the first consonant and its following vowel, to form words or fresh verbal bases. In these cases the original vowel is, except in instances referred to below, invariably repeated.

In verbal bases formed from monosyllabic words with full repetition of the vowel, the second vowel has the stress; otherwise this is fairly equal on the two vowels. Trisyllabic

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\*The most commonly used infixed consonants are: *p*, *t*, *n* and *k*, besides *ɟ*, *r*, *ɾ* and others. What is discussed here has reference to the vowels alone. Word-formation will be gone more fully into at its proper place.

words formed as mentioned from original dissyllabic ones are generally pronounced as having two stress-units.

Thus: *rɔr* (speak), *rɔpɔr* (reciproc. form, quarrel); *ɛm* (give), *ɛpɛm* (mutually give); *ruhet'* (scold), *rupuhet'* (scold one another); *hās* (pleasure); *hapās* (recipr. form); *raj* (king, landlord), *rapaj* (kings, collective); *mañjhi* (village headman), *mapañji* (so the correct form, not *mapañjhi*, headmen, collective); *kipisār* (the magnates, coll. of *kisār*, rich); *dupurup* (from *durup*, sit down, the place of tryst at the annual hunt); *gipitič* (from *gitič*, lie down, the place where the night is spent at the annual hunt);

*ɔr* (draw, pull), *ɔtor* (warp of a weaver's web); *bɔr* (fear), *bɔtor* (fear); *num* (to name), *nutum* (a name); *rɔk* (pierce, sew), *rɔtɔk* (seam); *jɔt'* (wipe, daub), *jɔtɔt'* (a kind of large brush);

*mucat'* (end), *munucat'* (end); *tɔl* (tie), *tɔnɔl* (a knot); *ārgo* (come down, let down), *anārgo* (slope, decline); *pon* (four), *ponon* (all four); *jɔk* (sweep), *jɔnɔk* (broom); *jorao* (join), *jonorao* (a joint); *tunuñ* (a rat trap, from *tuñ*, shoot with arrow); *hanarup* (cover, from *harup*, to cover); *lenetɛp* (with dental or supradental *n*; the anterior fontanel in babes, from *letɛp*); *bar* (two), *banar* (both);

*mit'* (one), *mimit'* (distributive, each one); *gɛl* (ten), *geɛɛl* (ten each, by tens); *benao* (make), *bebenao* (Performative, make); *ɔl* (write), *ɔkɔl* (Perform. form); *ir* (reap), *ikir* (Perform. form); *neñel* (Perform. of *nel*, see); *bhɔbɔr* (Perform. of *bhɔr*, bless);

*durup* (sit down, from a word *dur*, not found any longer in Santali, but common in Mundari and Ho); *teñ tɛɛn* (tightly, *r*-infix in last word); *hɔñ hɔñ*, *hɔñ hɔndɔn* (wide open); *hac' huc'*, *hadac' hɔduc'*, *hadɔac' hɔdɔuc'*; *tɔč tɔč'* (stretched out), *tɔč' tɔrrɔč'*; *herel*, *hepel* (man), possibly from *hel*.

If the first vowel of certain of these formations gets the stress, the second vowel is apt to become so fleeting as to be scarcely perceptible and often practically omitted, or even lost.

This happens with the Performative base of the verb formed by inserting an *k*, also with the Performative formed by reduplication of the first consonant and its following vowel, of dissyllabic words when the ultima has the stress, and in some other instances.

Thus : *beknao* (from *benao*) or *bek<sup>e</sup>nao*, also *beb<sup>e</sup>nao* (for *bebenao*) *ak<sup>g</sup>u* or *ak<sup>g</sup>gu* (from *agu*, bring); *dapram* (from *daram*, meet); *oprom* (from *orom*, recognize); *hapramko* (the dead ancestors, coll. from *haram*, an old man); *bapla* (marriage, from *bala*).

When the first vowel of a two- or more syllabic word is a resultant *a*, an ordinary *a* is substituted (*vide* what has been written on this subject para 26).

When the original vowel is nasalized, the nasalization is used generally only with the second vowel (*vide* examples *supra*).

When the first syllable contains a diphthong, only the first vowel is used in the new initial syllable, and the whole diphthong in the second. *E. g.*, *uihar* (longingly remember), *upuihar* (reciprocally do.); *aulau* (bring into disorder), *apanlau* (mutually do.); *bae* (store away), *babae* (Performative form); *lai* (tell), *lalai*, *lapai*.

In a few words with *e* or *i* in the first and *o*, *o* or *u* (having stress), in the second syllable the vowel of the second syllable is used, instead of that of the first. *Elohep* (beginning) (from *ehop*); *epoto* (reciproc. of *eto*, break in, train); *iputul'* (from *itul'*, to smear red lead on the forehead of a girl); *eporo* (reciproc. of *ero*, tantalize with food). *lipupuk'* (reciproc. of

*lipuk'*, deceive); *sipukup'* (reciprocal of *sikup'*, shut up), and a few others.

45. Santali has an immense number of double words, used mostly adverbially (but also otherwise), specially to describe something observed by any of the senses.

There is a consonant skeleton to which vowels are added. Except in a few combinations the vowels of the single word are identical; otherwise, whilst the consonants are kept, the vowel pairs may be altered so as to show all the vowels of the alphabet; the resultant ones are, however, only found when the vowels of the single word differ, and only *a* and sometimes *o* are met with.

There is a monosyllabic base which is doubled; or two monosyllabic bases are placed together; this double base is then amplified with infixes of sorts or suffixes and vowels. A full discussion of these combinations belongs elsewhere, under word-formation. A few examples are given here below to show how the vowels are used.

The whole series is scarcely found in any single combination; the vowels are generally found combined as follows:—

*a a, a i, a u, a a-a, a-a a-a,*  
*a-a e-e, a-a o-o, a-a o-o, a-a u-u, a-u*  
*a-u,*  
*e e, e e-e, e-e e-e, e e, e e-e, e-e e-e,*  
*i i, i i-i, i-i i-i, i-a a-e, i-o o-o, i-o*  
*o-o,*  
*o o, o o-o, o-o o-o,*  
*u u, u u-u, u-u u-u.*

To save space the English equivalents of the examples are not given, only hints as to the general meaning of the words of each series.



*Taṇ taṇ, taṇ tiṇ, taṇ tuṇ, tuṇ tuṇ, taraṇ taraṇ, taraṇ tuṇ, tiriṇ tiriṇ, tuṇ tuṇ; teṇ teṇ, teṇ teteṇ; toṇ toṇ, tuṇ tuṇ* (mostly about clear, ringing, or metallic sounds);

*keḅ keḅe, kib kibi, kub kubu; kaba kobo, keḅe keḅe, kiba kabe, kibḅ kibḅ, kobo kobo* (about stiffness in the loins, being bent); *kabak kabak, kabak kibḅk, kibḅk kibḅk, kabak kobok, kabui kabui, kubui kubui, kibḅe kibḅe, kabuc' kabuc', kubuc' kubuc', kabar kobar, kibir kibir, kobar kobar, kubur kubur, kubun kubun* (refer generally to up and down or quick, repeated movements);

*gas gas, gas gus, gis gis, gus gus* (about swarming, itching); *gasar gasar, gasar gusur, geser geser, gisir gisir, gisor gisor, gusur gusur, gasur gasur, gasar gosor, gisor gosor, gosor gosor, gasrat' gosrot', gisrot' gosrot', gasac' gusuc', gesec' gesec', gisic' gisic', gisoc' gosoc', gusuc' gusuc', gisḅn gosḅn, gusun gusun, giso gosḅ, gisa gase* (different meanings);

*hej heje, hij hiji, hoj hojo, huj hujn, haja hojo, heje heje, hija haje, hjo hojo, hojo hojo* (about stooping, leaning over, leaning out);

*lac laca, lec lece, lḅc lḅc, lacuk lacuk, laca lucuk, laca laca, lece lece, lica lace, lico lḅc, lḅcḅk lḅcḅk* (awry, askew, slanting, etc.);

*kar kur, ker ker, kḅr kḅr, karuc karuc, karur karur, karur barur, karuc' baruc', karac karac, karac' kuruc', kerec' kerec', kere kere, kerec' kerec', kirir kirir, kiro kḅr, kiruc' kḅr, kirot' kḅr, kḅr kḅr, kḅr' kḅr, kḅr' kḅr* (different meanings, partly onomatopoeic).

46. All vowels may be prefixed to any consonant, and joined to all, except to the checked consonants which have no off-glide.

All vowels may commence or close a syllable or word.

### The Consonants.

47. We use, as previously mentioned, for Santali the Roman alphabet, when needed, with diacritical marks. When a diacritical mark is used, it is selfevident that the character thus marked stands for something more or less different from, although similar to, the corresponding unmarked one.

But as our common Roman characters, even the consonants, not to mention the vowels, get a somewhat varied pronunciation in the different languages, as, *e. g.*, an English, a Danish, a Norwegian or an Italian *d* is differently pronounced in all these languages, the difference being due to some peculiarity permeating the general mode of speech in the language, so Santali has its own way of pronouncing the consonants. Before describing the different consonants it will therefore be necessary to make one or two remarks of a general nature to show what the unmarked Roman characters stand for in Santali, when they differ from the commonly accepted, especially the English pronunciation, if they do so at all.

In our system of writing Santali no consonant has generally more than one sound. This is especially to be noted with regard to *c* and *g*. The only notable exception is *n*, which in a very few cases stands also for a supradental *n*.

48. In the Scandinavian and also in the English and Teutonic languages many of the consonants, especially the stops, are more or less, although slightly aspirated, or have a more or less audible stress-glide; in Santali (as in other Indian languages) we have either a full aspiration or no aspiration at all. See remarks on aspiration below paras 51 to 54,

In English the tongue is often drawn a little back during speech ; thus the unaspirated dentals are not properly speaking dentals, but supradentals or alveolars. The Santals do not articulate in such a way. Their dentals are, with one very restricted exception, all pure dentals.\*

49. In the description given here below of the different consonants the order of our alphabet has, for the sake of convenience, not been followed, but those are taken together which physiologically belong together ; the example of the oldest phoneticians has been followed in commencing with those which are pronounced furthest back in the month.

50. In the following pages the expressions initial, medial and final have been used ; they refer to the place of consonants as actually found in Santali words, at the beginning, in the middle, or at the end of a word. About the initial and final consonants there cannot be any doubt ; with regard to those standing in the middle the case is not always clear. A medial consonant may etymologically belong to the preceding vowel, that is, be the last part of the (first) syllable, but phonetically, according to Santal pronunciation, it belongs to the following, when standing single. This subject will be referred to later on.

### **Aspiration in Santali.**

51. Although many of our North-European consonants, as remarked, are a little aspirated, we have not in our languages any aspirated consonants which are exactly like the Santali (or Indo-Aryan) sounds.

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\*Out here in India a good deal is heard about the way in which English is spoken by Anglo-Indians. The Indian surroundings influence them, so they do not acquire the English, but the common Indian physiological mouth position. Consequently their dentals are unaspirated dentals and not supradentals, and the intonation is Indian, not English, a pronunciation of English held in abhorrence by many.

When commencing to learn Santali Europeans often have trouble with the aspirated sounds ; they do either too little or too much, in the last case attempting to pronounce the consonant and the aspiration more or less separately. To help a beginner to pronounce the aspirates, the *kh* has, *e. g.*, been compared to the sounds pronounced in a word like *blockhead* ; it is not, however, quite the same ; to pronounce the aspirate thus would be a little overdoing the thing. The Santali aspirates are also different from what is heard in Danish words (*e. g.* in *tale*) ; to pronounce them in the same way would be underdoing it.

52. In Santali the stopped consonants, both breathed and voiced (*k, g, c, j, t, d, t, d, p, b*), can all be aspirated, and besides these also *n* and *r*, initial *n* in a peculiar form of the demonstrative pronouns, and medial *r* in a very few words. The aspiration of the *r* should perhaps not be treated as quite the same as that of the others.

53. When an aspirated consonant is to be articulated in Santali, the air current is stopped by the tongue at the particular point necessary to produce the unaspirated consonant wanted, the vocal chords being in the same position as for *h*. When the stop is released, the breath, temporarily shut up behind the stop, is let loose and makes itself felt like when the glottal fricative is pronounced, the difference being what is caused by the position of the moving tongue or lips. When the vowel comes, the vocal chords change position, at the same time automatically making an end of the aspiration.

One might be tempted to describe the Santali aspirated consonants as stopped consonants with the glottal superimposed on the ordinary off-glide.



It may in this connection be of interest to remember, that the aspirate is nearly always the stronger part of an aspirated consonant, and may maintain itself even when the consonant is lost.

54. The aspirated consonants are in Santali initial or medial; at the end of words the aspiration is generally dropped (except by purists who are found also among Santals); on the other hand final *h* is not uncommon.

The aspirated consonants are found immediately followed, besides by vowels, by nasals, by divided and trilled consonants, but not by stops.

### The Glottal.

55. *H* is the breathed glottal fricative, and is found both beginning and closing a syllable, i. e., both as initial, medial and final.\*

As an initial sound the Santal *h* is fairly like the sound in Eng. *head*, although generally perhaps a little stronger.

The *h* when final is of the same distinct character, and is in no wise comparable to the slight aspiration heard when, e. g., Danes pronounce *vi*, *du*, etc.

As in other languages so also in Santali the glottal varies somewhat in audibility according to the vowel with which it goes. This is more especially the case when the *h* is final; here the mouth-configuration makes its influence easily felt, the audibility varies with the

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\*This last fact should be borne in mind by persons who, transcribing foreign words with a silent final *h*, persist in retaining this, without troubling about the non-existence of silent characters in the Santal language and the undesirability of introducing such. A word written *M̐sihak̐*, instead of *M̐siaḱ̐*, a Santal will naturally pronounce *M̐si-hak̐*, which cannot possibly be intended.

amount of narrowing of the air passage, and how near the narrowing is to the lips; *h* is heard most strongly after *u*.

*H* is found followed by *k, g, c, ĵ, ŋ, t, n, r, d, n, r, l, p, b, m*.

Examples : *hqr* (defeat), *hāni* (that one, animate), *hul* (rebellion); *ah* (exclamation of pleasure), *uh* (alas!); *bahre* (outside), *mahle* (a tribe of bamboo workers), *sohrae* (the Santal harvest festival), *qhqc'* (a potsherd); *ahkao* (pant), *sohga* (borax); *baheca* (hire bullocks); *ohjao* (prove); *mohñjam* (have ready); *ohṭao* (sub side); *kohṇḍa* (pumpkin); *kulṛa* (mist); *kāhtuk* (proverb); *rahḍani* (object to); *gahna* (eclipse); *lahra* (white clouds); *qhlun* (low spirited); *jaḥpun* (tired); *sohḥḥḍ* (cheerful); *ohma* (infer).

The bronchial *h* may be heard when people are excited or acting as such; but it is individualistic and does not belong to any word by itself.

As a curiosity may be mentioned that in impatient snappish language *h* is sometimes prefixed to the interrogative pronouns, people saying *hok\_e* for *qkqe* (who).\*

### The Velars (Gutturals).

56. *K* is an unaspirated voiceless velar stopped consonant, more like the French sound in, *e. g., canne* or the

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\* In at least one word, viz., *teheñ* (to-day), the *h* seems to be a substitute for *s*; comp. Munḍari *tisin* (to-day); Santali for day is *sin*. There is likely no connection, but it may be of interest to remember, that in several eastern (Assam) languages, *e. g.*, in the descendant of Bengali called Assamese the sibilant has been substituted by the glottal. The same (*h* for an original sibilant) is occasionally met with so early as in the Prakrit languages.

In Munḍari and Ho *h* is found initial in a few words where the glottal is absent in Santali; *e. g., hatu* and *hita* for Santali *ato* (village) and *iṭa* (seed); *her* (sow), Santali *er*, *hirci* (sprinkle), Sant. *irci*, and so on.

In a number of words where Santali has initial *h* some of the related languages (as Kurku, Kharia, Juang and others) have *k*.

Italian in words like *casa* than the English, German or Scandinavian more or less aspirated *k*. The Santal *k* is formed by the back of the tongue being pressed against the soft palate to stop the air current, just a little more forward than with the Norwegian *k*.

Found as initial, medial and final; is found followed inside the same stress-unit by *t*, *th*, *nd*, *r*, *l*, *n*, *r*, *l*, *m*, *y*, *w*, and *s*.

Examples: *kan* (the verb substantive), *kul* (a tiger), *koṛa* (a boy), *kurul* (hate), *hako* (fish), *hūk* (pain in the back), *hakrao* (bellow); *phukṭi* (jest), *lakṭha* (long pole), *khokṇḍo* (ill conditioned), *sikṛīc'* (mosquito), *cakta* (flat, as a stone), *jak-nuc'* (shrivelled), *sekrec'* (a certain tree), *kekḷeset'* (numbed with fright), *roḷkme roḷkme* (gently), *khokṇy* (hollow in a tree), *sakwa* (horn-trumpet), *loksan* (loss).

57. *kh* is the fully aspirated *k*\*

*Kh* is used initial and medial and is found followed by *r*, *n*, *r*, *l*, and *m*.

Examples: *khan* (if), *khēt* (rice field), *khīs* (vexation), *khon* (from), *jokhec'* (time); *akhra* (a play ground), *cikhna* (sign, mark), *bakhra* (share), *gokhla janum* (a certain plant), *dukhma* (seek with trouble).

58. *G* is the unaspirated voiced velar stopped consonant. The same sound as found, e. g., in French *gare*. Articulated in the same way as *k*, except that *g* is voiced.

The sound may be initial, medial and final; *g* is found followed by *j*, *d*, *r*, *d*, *dh*, *n*, *r*, *l*, *m* and *w*.

E. g., *gal* (brag), *gēl* (ten), *gōl* (whistle), *gul* (noise), *laga* (drive away), *rag* (pungent), *kaggi* (a kind of lime),

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\*It is the same sound as Hindi ख, and is the sound used to express the Arabic خ in borrowed words, in all cases introduced through Hindi or Bengali.

*lugri* (cloth, garment), *rogdo* (knotty); *digdha* (doubt), *bhagna* (sister's child); *ghugri* (the mole cricket); *lagti* (liability); *cugli* (tell tales); *regmeñ* (fierce); *bhagwa* (piece of male attire).

59. *Gh* is the aspirate of the foregoing. It may be initial and medial, but is not used as final. The aspirate is then dropped.

*E. g.*, *ghal* (a wound), *ghao* (a sore), *taghen* (prop), *righi* (incision). I can only remember to have found it followed by one consonant, viz., *r*, as in *aghras* (extend).

60. *Ṇ* is the velar nasal, the same sound as that of the *ng* found in the Eng. *king*, *long* (in other systems of transliteration written *ṇ*).

The sound is not found initial in Santali, only in the middle and at the end of words. When in the middle, the pronunciation in one respect varies; if standing alone, it may be heard spoken as belonging to the following syllable; otherwise it is pronounced as belonging to the preceding vowel.

There is no *g* in this sound; if this is found written, it is to be distinctly pronounced.

*Note*, in words like *onka*, *enka*, *onko*, etc., the proper sound is *n*, not *ṇ* as very commonly pronounced by foreigners; now-a-days also Santals, especially those with some school-training, may be heard to use the *ṇ* instead of *n*.

*Ṇ* is mostly followed by one of the velars (*k*, *kh*, *g*, *gh*); in a few words also *t*, *r*, *ṭ*, *ḍ*, *n*, *m* and *s* are found following.

*E. g.*, *bañ* (not), *baña* (no), *enāñre* (a while ago), *lañta* (naked), *koñka* (mad), *tiññ tiññ* (excited), *eñga* (female), *ḍañgra* (bullock). *qñsṇ* (kindred), *kañkha* (brim), *kañḍar* (bawl), *goñgroṭ* (hoarse), *guñgra* (speechless, dumb), *goñgha*



(a snail), *ghɛ̃nɛ* (with a squeaking voice), *bañma* (namely), *lɔ̃nti* (duenna), *ghĩñrĩ* (= *ghĩrĩ*, a certain lizard).

61. *K'*, the velar checked consonant, will be described together with the other checked consonants below. See para 104.

### The Palatals.

62. *C* is a mediopalate voiceless stopped consonant, articulated by placing the middle part of the tongue flat against the hard palate and then releasing the stop. English people are liable to mix the Santali *c* up with the English *ch*, as, e. g., in *church*. It differs, however, from this in being a quite unaspirated explosive with no hiss, and English phoneticians describe their *ch* as a compound of *t* and *sh* (that is, they use a phonetic sign which our printers have not got, for what is here written *sh*). It is not quite the same sound as that found in Scandinavian (espec. Norw.) dialects written *tj*.

In popular (Scandinavian) writings on Indian topics it is very common to see this and the corresponding voiced palatal attempted rendered by *tj* and *dj*. The writer has not been able to satisfy himself that the Santal sounds in question are compound ones. M. Paul Passy in his *Petite Phonétique Comparée*, writing of a similar sound, uses rather strong language, saying it is "une oreille mal exercée" that believes to hear the compounds mentioned.

The Santal *c* is found initial, in the middle and final.

*E. g.*, *cal* (hand over), *lac laca* (flat), *lɛcre* (a woman with a rattling tongue), *acel* (wealth).

*C* is found followed by *k, t, r, n, l, m*: *backom* (the sabai grass), *backar* (a juggler), *locman* (gainsay), *pacla* (back-

wards), *pocra* (cowardly), *picnuc'* (tiny), *mocra mucri* (writhe, twist), *kac̣tao* (knead).

Eng. *s* is occasionally heard rendered by this sound, e. g. "court fees" is by Santals pronounced *koṭ phĩc*.\*

63. *Ch* is the aspirate of the preceding, is initial and medial, and found closing a syllable before *r*, *n* and *l*.

E. g., *chal* (bark of trees), *lacha* (tuft), *lochna* (pretext), *bachri* (annually), *bichnau* (disentangle), *pichlau* (slip).

In interjectional words, as *chi* (fie), the aspiration may, especially with woman, be very strong, so as to make an impression of hissing.

64. *J* is the same sound as *c*, but voiced; it differs from the Eng. *j*, just as the Santali *c* differs from *ch*.†

*J* may be initial, middle or final;

as in *jel* (meat), *ajare* (drop in, call), *raj* (kingdom).

It is found followed by *g*, (*j*), *r*, *n*, *r*, *l*, (*b*), *m* and *w*.

E. g., *ajgut* (strange), *ajjo* (what!) *gijri* (curdle), *bajra* (Sorghum vulgare), *jojna* (revile); *ojra* (pot-bellied), *kajri* (dark spotted), *bojra* (with the dhuti low on the stomach), *ujla* (bright), *hejlec'* (untidy), *khijlau* (irritate), *ajbajao* (tangled), *ajbi* (true); *ajmao* (try), *gajwak'* (turn sour).

*J* is used to render the voiced sibilant or the *c* in borrowed words, Santali in this following the example of Hindi and Bengali. E. g., *hajur* or *hujur* from Urdu (Ar.) حاضور, *hajar* from Pers. هزار, *hajri* from Pers. (Ar.) حاضري; *jarur* from Urdu (Ar.) ضرور; *Suej* for Suez.

\*Santali *c* is the same sound as the Hindi च as generally pronounced in these parts. If the Santals have to render the English *ch* or *j* (or soft *g*), they will always use their sounds written *c* and *j*; they find their *c* or *j* and the English sounds sufficiently similar. E. g., *cargj* for Engl. charge, *biñci* for Engl. bench, *iñci* or *riñci* for Engl. inch, *marco* for Engl. March; *bilej* for Engl. village, *jogj* for Engl. judge.

†It is the same sound as that generally found in Hindi or Western Bengali (ज or झ) in these parts.

Englished voiced *s* is sometimes rendered by *j*, e. g., *kompōj* for Engl. compose (as printers).\*

65. *Jh* is the aspirate of the preceding.

May be initial and medial, as in *jhīk* (porcupine), *jhāl* (long), *bojha* (load).

It is common to see borrowed words written with a final *jh*, as *bujh* (understanding); this is undoubtedly done under influence of the mode of writing in the language from which the word has been adopted; but a final aspirated consonant is not used in genuine Santali.

It is found followed by *r*, *n*, *l*, and *m*.

E. g., *ojhṛao* (loose flesh), *lijhṛāk'* (flopp down), *ajhṇar* (wife's or husband's elder sister), *ujhḷau* (pour out), *ajhmao* (digest).

66. *Ń* is the palatal nasal, produced by placing the tongue blade flat against the palate with the nose-passage open, finishing by releasing the mouth stop and bringing the tongue down. The tongue tip is kept loose and not pressed against the palate.

A similar sound is well known in a number of European languages as in French in words like *agneau*, in Spanish in words like *señor*, also in the Scandinavian languages; but the Santal sound is generally a little more back than these. It should be noted that the Santal sound is not pronounced like *nj* (or *ny*) as, e. g., the initial sound in the English *new*. The Santal sound is not a compound one.†

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\* This may be through Bengali influence. Bengalis are constantly heard using their *j* for the English voiced sibilant when inserting English words into their speech, saying, e. g., *mejur* for measure, *jink* for zink, *saej* for size, *Kerjōn* for Curzon, and the like.

† It is curious that this consonant is wanting in several of the other Kolarian languages (e. g., in Mahle) or is found much less extensively used than in Santali, the dental or the velar nasal being used instead.

The sound is found initial, medial and final.

*E. g.*, *nel* (see), *len* (creep), *tenan* (my elder sister's husband), *anũ* (give to drink).

Is found followed by *e*, *j*, *jh*.

*Ancar* (hem end of a garment), *anjle* (both palms held together hollowed), *manjhi* (village headman), *manjhla* (the fourth of six brothers); *mñj* (beautiful), *anjom* (hear).

When followed by other consonants than these, there is likely not one, but two stress-units.

67. *Y* is the open medio-palatal fricative sound, produced by putting the front of the tongue up against the palate (tongue tip is pressed loosely down against back of lower front teeth), leaving a narrow opening in the middle of the tongue between this and the palate, narrower than when pronouncing the vowel *i*.

There may be a slight difference in the pronunciation (or fricative force) of *y* when medial, the opening between the tongue and the palate varying according to the vowels between which the *y* comes.

The *y* is found in Santali used in two (or, including sung Santali, sometimes in three) ways. It may be a component part of a word and then seems to partake more of the nature of a consonant, corresponding to *y* in English words like *yes* or *yard*. It never, however, becomes so "hardened" or consonantic as the German *j* in *ja*. This *y* is found in words, such as *yoi* (an interjection calling to men), *qyup* (evening; cf. Semang *jup*, and *najup*), *uyuk'* (bring down), *hoyo* (shave), *ayur* (lead). In such cases it seems that the *y* is a consonantic component part of the root.

In ordinary language this *y* seems to be initial in a couple of words (*yoi* and *yu*); but these two words will always be found preceded by another word—mostly ending



in a vowel, or by a vowel of interjection: *hijuk'me yoi* (come here, you chap); *e yoi* (I say, you fellow), *calak'me ya* (go, boy). Expressions like *mən yoi* (have a care, you there), *Lal ya* (Lal, you boy) are, however, common, showing that a previous vowel is not necessary, only something to tackle the *yoi* or *ya* on to. It is possible that in cases like the last two mentioned a very short *i* or *e* is heard as an intonation.

In singing the Santals, in accordance with their custom of not letting any word commence with a vowel,\* sometimes put a *y* before certain words and say, e. g., *yona* for *ona* (that). Here the sound is undoubtedly initial, somewhat like the *j* of the Danish *ja*, when pronounced soft.

Except in cases like those mentioned the Santali *y* has no independent existence, but is euphonic and only found between two vowels to mediate the transition from one to the other, the language not permitting hiatus. In all such cases it had perhaps better be called a semivowel; it is not enough of a vowel, and has not enough "independence" to cause "resultance." The semivocalic *y*, as will be understood, is found only medial. In actual speech it is always part of a diphthong (*vide supra*), e. g., *la-y-et'ae* (he digs), *gai gupiyic'* (the cowherd).

There has been some uncertainty as to its use in writing; but there is no uncertainty in the living language.

For further details as to the use of *y* the reader is referred to the chapter on Euphonic semivowels (para 114).

In borrowed words originally commencing with a *y*, this is either omitted or altered to a full vowel.

*Jurop* (besides *Jurop*) = Europe, *eal* = Pers. یاد *yad* (make one remember).

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\* This peculiar custom will be referred to later on, see para 123.

In words where an original *y* has become *j* (as in a good many words borrowed from Sanskrit through Hindi or Bengali) the transformation likely occurred before the borrowing (*e. g.*, *jōm raj*, fig., death, from Skr. यम, *jugi*, a devotee, through Beng. যোগী).

68. *C'*, the checked palatal, *vide infra* the checked consonants (para 106).

### The Cacuminal or Cerebral sounds.

69. The name *cerebral* is not very descriptive; hence some phoneticians have commenced to call these consonants *cacuminal*. If one, however, is to be particular as to the proper meaning of *cacumen*, neither does this name fit all the sounds of this class; but *cacuminal* seems better or a little nearer than the other.

The cacuminals are written like the dentals, only with a point below the letter to distinguish the first ones from the others. This marks both likeness and difference; it may be of some practical use to indicate both, as the cacuminals are foreign to most Europeans and liable to give those who learn the language some difficulty.

In both classes of sounds the tip of the tongue plays a principal part. When the tongue-tip touches the back of the teeth, we get the dentals proper, as found in Santali and other Indian languages, and also in many European languages.

In some languages, as has already been touched on, the tongue-tip is not permitted to reach the teeth when pronouncing the 'dentals': the tongue tip is placed against the gum or a point on the palate, more or less forward. Whilst thus a Santali *t* is a proper dental, an unaspirated English *t* is ordinarily not a dental, but a supradental or

alveolar, as they are now more commonly called; other *t*'s may be said to be tongue-tip palatals.

It is common for all these different dentals or quasi-dentals that they are articulated with the tongue-tip uninverted.

70. The cacuminal sounds are in Santali all pronounced with *the tip of the tongue inverted or retroflexed*.

It may require an ear accustomed to these sounds to hear the difference between the sound pronounced with an inverted tongue-tip and the supradental or 'palatal' lingual. The inverted tongue tip sound is perhaps a stronger explosive.

As remarked, an ordinary English dental is distinctly different from the Santali dental. When it happens, as it sometimes does, that the Santals have to, or try to pronounce English words with a *t* or a *d*, they must, to render these sounds, as they have no supradental *t* or *d*, choose between a pure dental and a cacuminal. They have no hesitation as to which they should use; the cacuminal is felt to be nearer in sound, as it also is. The Santals are not alone in this; Bengali and other Indian languages do the same under similar circumstances.\*

The cacuminal sounds are in Santali articulated by drawing the tongue back and raising the point of the tongue against the palate at the same time inverting it, so that

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\*The peculiarity of rendering an English "dental" with a corresponding cacuminal is likely without exceptions. When the English "bottle" becomes *botol*, and "button" becomes *botam*, it might be remarked that both these renderings are found in Bengali, from which language the words have been adopted. They are not direct renderings of English words. Dr. S. K. Chatterji in his great work *The Origin and Development of the Bengali Language* points out that both these words do not come from English, but from the Portuguese *botelha* and *botão* respectively.

the under-side of the tongue-tip touches the palate, or, in the case of the *r*, the inverted tongue-tip is placed just below the palate without touching. These sounds are consequently formed more or less back in the mouth.

71. In European languages where these sounds are found, it is commonly accepted that some of them (generally, not exclusively) are the result of a contraction of, or of a compromise between two consonants, an *r* or a "thick *l*" and a following *t*, *d*, *l*, *n*, or *s*. These sounds are in Europe found in parts of Norway and Sweden, where, however, there seems to be a "spirantic glide" commencing the cacuminal proper. (Cp. the remarks of Prof. Joh. Storm on these sounds in his excellent work "Norsk Lydskrift" p. 100.) I should not have mentioned this peculiarity here, if it was not to remark, that the Santal sounds seem to be unalloyed; there is no initial spirantic glide, except with the *r*. The articulation of *r* might be called one single large trill, only it is to be remembered that the whole tongue point, or even the whole 'fore' tongue participates. It is significant that *r* is a consonant very frequently found following a cacuminal.

Except in words borrowed from Aryan (Indian) languages and in the case of the cacuminal *n*, it is not possible in Santali to show the origin of the cacuminals. In borrowed Aryan words the cacuminal sounds are due to consonant combinations similar to those mentioned above, but also to others\*; often even in such words there does not seem to be any satisfactory explanation, and dental and cacuminal sounds are found in parallel forms. The cacuminals may possibly often be due to the

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\* E. g., Skr. root *stha* becomes *tha* or *ṭha*, as *than* (place, specially religious), *ṭhāi* (place), *uṭhau* (raise, break up etc.), through Hindi from Skr. *utthan* (i. e., *ud-stha*).



influence of non-Aryan languages. In Santali, or the language from which present-day Santali has developed, the cacuminals are likely often original sounds.

It might be remarked that Santali has no other cacuminals than those mentioned here; the sound which Prof. Joh. Storm in above cited work writes *ɾ* in contradistinction to the "thick *l*" (our Santali *ɾ*) is thus not found in Santali. The Sanskrit cacuminal *l* is also unknown.

72. *Ṭ*, the voiceless unaspirated cacuminal stop, is in Santali produced by placing the under side of the inverted tip of the tongue against the front palate (behind the gum). thereby shutting the air passage, and then opening this by releasing the tongue tip which goes down and forward, automatically straightening itself out. It is a vigorous explosive.

As already touched on the Santals (like other Indians) render the English *t* by this sound (as, coat=*koɽ*, October=*akɽobɽ*, *ɽikit*=ticket).

It is found initial, medial and final.

*El. g.*, *ɽuɽ* (orphan), *ɽaɽ* (armlet), *ɽoɽok* (a jungle cat), *roɽe* (frog), *laɽ* (subjugate), *haɽ* (market-place).

A syllable commencing with *ɽ* will not suffer a dental tongue-tip-lingual (*t* or *d*), aspirated or unaspirated, to close the syllable or commence the next syllable of the same word, also *vice versa*.

*Ṭ* is found followed by *k*, *ɾ*, *n*, *r*, *l*, *b*, *v*, *w*, *m*.

*El. g.*, *ɽoɽkɽ* (a cattle bell of wood), *koɽɽẽ* (lumpy), *koɽnak* (small earthen cup), *kaɽa kaɽa* (pieces), *hoɽlɽe* (small earthen vessel), *eɽbe* (besmear), *baɽvi* (lascivious), *ghaɽwa* (make a sweep at), *keɽmeɽ* (dumpy).

73. *Ṭh* is the aspirate of the preceding consonant.

Initial and medial, and found followed by *r*, *n*, *r*, *l*, *w*, *ng*.

*E. g.*, *ṭhēnga* (stick), *ṭhak' ṭhok'* (dull flat sound), *reṭhe* (stunted); *kāṭhna* (numb with cold), *kāṭhli* (wooden oil vessel), *kūṭhri* (cabin), *aṭhrē* (fulcrum, prop), *oṭhngao* (to steady on), *aṭhwar* (Sunday).

74. *D* is the voiced unaspirated cacuminal explosive, not different in production from the *t*, except that *t* is voiceless and *d* voiced.

Is initial, medial and final, found followed by the same consonants as *t* (except *g* for *k* and not by *r*), viz., *g*, *n*, *r*, *l*, *b*, *v*, *w*, and *m*.

*E. g.*, *dān* (witch), *geḍe* (duck), *chād* (exempt), *hadgar* (striped hyena), *guḍṇa* (a cudgel), *buḍruc'* (spit out), *uḍli* (oval basket), *guḍma* (oblong), *kuḍbur* (hang the head), *haḍwa* (bony and big), *ṭiḍvi* (impudent).

Santals attempting to render English *d* invariably use this cerebral, except in cases where *t* is used \* ((*e. g.*, *laṭ*, for lord, *boṭ* for board, *pareṭ* for parade). *Rod ses* = road cess; *ḍipti* = deputy (magistrate); *ḍhismis* = dismiss. (Note, the aspirate in this last case, as in many similar words, is likely meant to show force).

Like *t*, *d* is not in the same syllable followed by the dental linguals *t* or *d*, and *vice versa*. The only exceptions to this rule which I have found are the two words *dhuthak'* (interj. of regret and wonder) and *dhadra* (for *dharra*, black and white, as goats).

75. *Dh* differs from *d* only in being fully aspirated.

Is initial and medial, and is found closing a syllable before *n* (this is very rare).

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\* See footnote para 70. As mentioned in the first edition the word *rusid* is not the Engl. "receipt", but in all probability the Persian رسيد).

E. g., *qharwak'* (a twig or small branch with leaves), *qadkit'* (the burnt refuse of milk), *jadhna* (phlegmatic).

It may be mentioned that no Santal word commencing with the cacuminals *t*, *th*, *ɖ* or *dh*, has, if dissyllabic, got *c* or *j* as ending the first or commencing the second syllable.

76. *ŋ* is the cacuminal nasal, articulated by closing for the air by putting the inverted tongue tip against the palate (very much in the same place as when pronouncing *ɖ*) and letting the soft palate down, so as to permit of the air partly escaping through the nose. It is in Santali a voiced sound.

It is found only before *t*, *th*, *ɖ*, and *dh*\* and is not found following any single consonant, except when prefixed to another cacuminal, apparently only *ɖ*; *ŋ* may thus possibly not be an original sound in Santali.

Specially in the demonstrative adverbs it may be observed how an original *n* under the influence of a cacuminal *ɖ* is changed into *ŋ* (e. g., *ɖndɛ* = *ɖn* + *ɖɛ*, there).

E. g., *kanṭa* (throat), *biṇṭhi* (kind of knife), *aṇḍic'* (seduce), *gaṇḍke* (a log), *oṇḍga* (ogre), *guṇḍri* (a quail), *kuṇḍlaṇ* (lie down), *muṇḍhaṭ'* (stump of a tree, log), *kaṇḍwer* (a certain tree), *kohṇḍa* (pumpkin), *khokṇḍo* (ill conditioned), *bharṇḍo* (whirlwind), *phupṇḍa* (mouldy), *bhosṇḍo* (slovenly).

The consonant combinations with *ŋ* are those shown in the examples.

77. A cacuminal *ŋ* standing alone (*i. e.* initial or between two vowels, which according to Santal pronunciation would mean commencing a syllable, or final) is scarcely found. The writer was for some time under the impression that a cacuminal *ŋ* was found alone in this way in a very few

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\* Some people, likely on account of this fact, do not think it necessary to mark the *ŋ*.

words. After careful testing of the consonant in question there does not seem to be any doubt that it is not a cacuminal *n* (with inverted tongue tip), but a *supradental n* which is used. For practical reasons this has not been marked. In sound this is very like the English *n*, perhaps a trifle further back in the mouth. It possibly owes its origin to a neighbouring cacuminal. One of these words is *ṭonək*, with the parallels *ṭorək* and *ṭonək* with dental *n* (hit, in the *kāṭi* game); *ṭonək* is really a boy's word. Another is a name for a part of the female anatomy. A third is *Ṭunuc'* (a proper name); further, *sunuḍur* (rapids of a river, from *suḍur*).

It should further be mentioned that the supradental *n* is found initial in a few borrowed words, *e. g.*, in *naṅgraha* (a city); why this is so, I do not know; the original Skr. word (नगर) has a dental *n*.

On the other hand Santali has dental *n* in *ruhni*, borrowed from Hindi रोहिणी.

Eng. *n* is rendered by the supradental *n* or cacuminal *n* (according to its fitting in with the Santali phonetics); as initial it is generally rendered by *n* and also by *l*. *E. g.*, *Inḡlonḡ* (cacuminal), *laltən* (Engl., lantern, supradental); *noṭ* and *loṭ* (Engl., note), *noṭis* or *nuṭis* or *luṭis* (Engl. notice); *Gobqrmēṭ* or *gobqrmēt* (Engl., Government).

78. *R* is a sound which experience shows is one of the most difficult to learn to pronounce correctly for those who have not acquired it from childhood. The sound is in no way different from what is popularly called the "thick l" in the eastern parts of Norway and the adjoining parts of Sweden. It is articulated in the following way:—The tip of the tongue is first drawn up towards the middle



hard palate, being at the same time inverted, but is not permitted to touch the palate. The tip of the tongue is then moved rapidly and evenly forward towards the front teeth along the palate, which, however, is not touched. When passing the upper gum, the inverted tongue tip momentarily touches this. The end is, that the tip of the tongue strikes against the lower front teeth, at the same time doing away with the inversion. Provided the tongue tip is inverted, it is not necessary to exert oneself to draw the tongue tip far back. It is sufficient that the tongue tip is just far enough back to commence its sweep before it touches the arch rim.

There is at start just a touch of an *r*-glide in it, and the touching of the upper gum by the tongue-tip might be called a single *r*-trill; hence the sound is generally called a cacuminal *r*. Prof. J. Storm (in his *Norsk Lydskrift* p. 105) agrees that the popular (Norwegian) verdict that the sound is a "thick *l*" is not founded entirely on an illusion, although he acknowledges that foreigners take it to be an *r* sound, and himself explains that in Norwegian the sound has generally its origin in *rd*.

If foreigners are unable to acquire a correct pronunciation of this sound, it is advisable to use instead an *r* and not an *l*; the *l* is felt to be much more divergent by the Santals.

To avoid misunderstanding with those who are acquainted with Norwegian dialectic phonetics it should be remarked, that the Santal sound (*r*) is different from the cacuminal spirantic untrilled *r̥* (in Norw. dial., *e. g.*, *gūr̥rōt*) or the supradental spirantic *r̥* (in on-glide, in Norw. dialects, *e. g.*, *svar̥t*) and is never through the influence of adjoined consonants changed into such (as happens in Norw. dialects). The sounds just referred to are not met with in Santali.

The same sound is found in a great number of Indian languages. The writer has not tried more than occasionally to investigate this sound with Indians speaking other languages than Santali. Some have expressed a doubt as to whether all speakers of the Aryan languages really invert the tip of the tongue when pronouncing this and the other cacuminal sounds.\* The writer has found that all he has examined, do so.

*Ṛ* is in Santali never found initial in words, although the people have no difficulty in pronouncing it as an initial consonant when (phonetically) commencing a syllable in the middle of a word. It is found medial and final.

*Ṛ* is found followed by *h, k, g, ṅg, c, ch, j, jh, y, ṇ, t, d, dh, n, r, p, b, m, v, w*, and *s*.

*E. g.*, *laṛhqi* (fight), *ṛrkuc'* (a pressful of oil seed), *ṛgo* (descend), *eṛṅga* (quibble), *eṛce peṛce* (wriggle), *poṛcho* (clear), *hārjaṇ hūrjaṇ* (bent), *koṛṇje* (wry), *eṛjhe beṛjhe* (twist), *geṛyom* (smoothen), *keṛyot'* (fowl's scream), *baṛti* (more), *ṛtic' gūṛtic'* (minutely), *khṛduk'* (limp), *jṛḍhe* (clog), *khṛnduṇ* (abysmal), *coṛndaṇ* (which does not hold water), *juṛni* (admixture, heaping up), *koṛra* (whip), *koṛpa* (glean), *loṛpe* (wry mouthed), *haṛbaṇ* (old and lanky), *hoṛmo* (body), *beṛmbak* (incorrectly), *ghṛri* (sore in the neck), *kūrwaṭ'* (a certain thorny tree), *oṛsa aṛak'* (a certain lily).

It will be seen the *r* may be followed by any consonant except the cacuminals and *l*. When of the aspirates only *ch, jh* and *dh* are actually found as following, this is likely accidental.

*Ṛ* may be preceded by the same consonants except the semivowels *y, v* and *w*.

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\* The inversion of the tongue tip is so characteristic that all sounds which are articulated in this way ought to be counted as belonging to a separate class, and to be distinguished from the supradental or palatal un-inverted tongue-tip stops. Retroflex linguals might be a name for these sounds.

79. In certain combinations of *r* and other consonants a metathesis may be observed, the convenience of the speaker as to ease in pronunciation being apparently the only rule followed; thus *r̥h* and *hr* (*d̥ahr̥i* and *d̥ahr̥i*, a turban), *r̥ñj* and *ñjr̥* (*koṛñj̥e* and *koñj̥re*, crooked), *r̥nd* and *ndr̥* (*kh̥ar̥nduñ* and *kh̥ar̥nduñ*, deep), *r̥l̥h* and *dhr̥* (*loṛdho* and *loḍh̥ro*, corpulent), *r̥ng* and *ng̥r̥* (*dhar̥nga* and *dhan̥gri*, strapping); *rr* is interchangeable with *ḍr̥* (perhaps under influence from Aryan languages; *koṛra* and *koḍra*); *rr* with *ndr̥* (*naṛri* and *naṇḍri*, trachea). Possibly it is found to be easier to pronounce the *r̥* after than before the other consonants in the combinations mentioned.

### The Dentals.

Sounds produced with the tongue point against the teeth.

80. *T* is the unaspirated voiceless inter-dental or post-dental explosive sound. With the post dental pronunciation which is possibly the most common, the point of the tongue is placed against the back of the upper teeth. With the inter-dental pronunciation, which is most frequently observed in women, the tip of the tongue may be distinctly seen in front of the upper teeth. The difference is individualistic.

It has already been remarked that the Santal *t* is different from the English *t*, which a Santal will invariably render by the cacuminal *t̥*.<sup>\*</sup> It differs also from the Norw. and Swedish *t* in having no aspiration at all, and always being "outer."

*T* is found initial, medial and final.

It is found followed by *k*, *r̥*, *n*, *r*, *l*, *b*, *m*, *w*, *v*.

*E. g.*, *at̥kir* (carry of), *bot̥ke* (yoke of an egg), *roṭ̥reṭ̥* (play beautifully on the flute), *bhot̥ro* (blunt), *at̥nak* (Terminalia)

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<sup>\*</sup> See footnotes para 70, 71 and 74.

tomentosa), *citri* (partridge), *atruñ* (be reluctant), *hatlak'* (armpit), *gutlu* (tickle), *etbar* (faithfulness), *matbor* (honourable); *thutma* (podgy), *thutmba* (podgy), *hatwa hatvi* (grasp after with the hands); *tetañ* (thirst), *ti* (hand), *itil* (fat), *bat* (rheumatism), *bhit* (wall).

81. *Th* is the preceding consonant aspirated, and needs no further description. As *t* it may be inter-dental or post-dental.

It must not be confounded with the Eng. fricative *th*; it is also a much "cleaner" sound than, e. g., the aspirated *t* in Danish words like *tale*.

*Th* is in Santali found initial and medial and found followed by *r*, *n* and *r*.

*E. g.*, *tho* (spit), *lathak'* (lumpy), *lethrec'* (dash oneself down), *kothne* (feign not to know), *muthni* (top, summit), *gend-rec' cethrec'* (rags).

82. *D* is the unaspirated voiced dental explosive.

It is rarely inter-dental in Santali; it seems mostly to be post-dental.

What was remarked about *t*, holds *mutatis mutandis* good for *d* also.

It is found initial, medial, and final.

It is found followed by *g*, *r*, *n*, *r*, *l*, *m*, *w*.

*E. g.*, *dad* (ringworm), *dada* (elder brother), *hodgo* (shaggy), *ludgup'* (luxuriant), *kudrañ* (strike with the fist), *gudri* (goat- or sheepfold), *ledret'* (paunchy), *khudni* (female of a tatooing caste), *udnañ* (spread out), *edre* (anger), *udri* (dropsy), *khulle* (throw into fire or water), *dhodlo* (corpulent), *udma* (leisure), *adwa* (sundried rice, not boiled in the husk).

83. *Dh* is the aspirate of the preceding.

It is quite another sound than that of the Eng. *th* in words like *then*.



It is found initial and medial and followed by *r*, *n*, *r*, *m*.

*E. g.*, *dhar* (edge of tool), *budha* (clogs), *godhra* (a felled sapling with the bark on), *lodhro* (stout), *udhnao* (spread), *godhnao* (respect), *odhrao* (half finish, peel off), *ledhra* (paunchy), *udhma* (leisure).

84. *N* is the dental nasal; it differs from the English *n* inasmuch as the point of the tongue is in English kept a little further back than in Santali. In Santali the passage of the air through the mouth is shut by placing the point of the tongue against the back of the upper teeth. An interdental pronunciation of *n* also occurs. It is unaspirated and generally voiced.

*N* is found initial, medial and final.

It is found followed by *h*, *k*, *kh*, *g*, *t*, *th*, *d*, *dh*, *w*, and *s*.

*E. g.*, *nanha* (thin), *bana* (a bear), *cun* (lime), *janhe* (*Paspalum scrobiculatum*), *unkup* (surmise), *tenko* (refresh) *nonkan* (such), *kankha* (brim), *chingau* (stray away), *jante* (millstone), *kantha* (patch), *cūnd* (muskrat), *dundu* (owl), *nindir* (termite), *gendrēc* (rag), *gendrak* (rag), *endrae* (three days hence), *dondho* (overcast with clouds), *khandlak* (rough), *as-kandua* (peevish, crying), *khandri* (deep), *sendra* (hunt), *nanhwa* (wide mouthed earthen vessel), *kandha* (chamber) *andhri* (blind), *gandhua* (stupid, listless), *pondhar* (a certain kind of dove), *janwar* (animal), *banwār* (jungle mouse), *ansa* (annoy), *gunsī* (ornamental chain).

85. *N* and *l* are somewhat frequently interchanged, that is to say, *l* is used instead of *n*, initial and medial, but nearly never final, so far as the writer can call to mind. This interchanging is almost exclusively found in loan words, also in words taken over from English, generally through Bengali. Hence it would seem likely that this is not a genuine Santali "operation", but something borrowed

from rustics speaking Hindi or especially Bengali. In this latter language the same interchange is very common, so much so that one would think that the rustics in many cases do not distinguish between the two consonants. The writer has often heard villagers, when trying to speak Santali words (especially) with a medial *n*, give this as *l* (pronouncing *sunum*, oil, as *sulum*, and so on).

*E. g.*, *lil* (indigo) for *nil*; *lot* for Eng. note, *pilsin* for Eng. pension, *laltēn* for Eng. lantern.

The way in which *n* and *l* are written in ordinary Bengali shows the same confusion; they are very frequently quite alike, that is, *l* is written like *n*.

86. This nasal is very liable to be influenced by a following velar, palatal or cacuminal, so as to become either *ṇ*, *ṇ̃* or *ṇ̣*. It will, however, be seen that *n* is found followed by *k* and *g*. In the first case, *i. e.*, when *n* is followed by *k*, we often find parallel forms, one, the correct or original one with *n*, and another with *ṇ*; *e. g.*, *kankha* and *kankha* (brin), *kunkul* and *kunkal* (potter), *nonka* and *nonka* (this last is heard, but not considered correct by the Santals themselves). When followed by a palatal or a cacuminal, *n* always becomes *ṇ̃* or *ṇ̣* respectively.

87. *Nh* is the aspirate of *n*. It is articulated in the same way as the other aspirates, *vide* para 53. It is found initial in the so-called lateral demonstrative pronouns and adverbs.

*E. g.* *nhui* (this one on the side), *nhandē* (there on that side).

When found medial, it may be heard like an aspirated *n* in rapid speech; generally in such cases it is *n* and the glottal fricative after the off-glide; thus *nonha* (thin).

88. *R* is in Santali articulated in the following way: The tongue is pressed back, the tip just far enough to be in a position to vibrate against the upper gum. The point is made as thin as possible, whilst the tip of the tongue is raised a little so as to form a small spoon-like concavity between the tip and the body of the tongue. The point of the tongue is then made to "trill" or vibrate against the upper gum, thus in rapid succession interrupting the air stream.

The part against which the point of the tongue vibrates may not always be the same, it varies with the individual; it may be a little more forward or a little more back; but it is always the point of the tongue which is vibrated.

For the sake of convenience *r* is classified as a dental; from the description given it will be seen that the Santali *r* is really a supradental sound.

The Santal *r* is, as is seen, more or less different from most of the *r*'s found in the countries round the North Sea; there is, however, very little, if any, difference between the Santali sound and the *r* of the south eastern (inland) parts of Norway.

It should be remarked that within the limits mentioned above there may be said to be several varieties of the Santal *r*, the vibration may be more or less pronounced, and the *r* may be more or less clearly voiced.\*

*R* is found in Santali initial, medial and final, as in *rg* (a fly), *qr* (pull), *dereñ* (horn).

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\* The proper Santal *r* is, for those who have not been accustomed to it from their childhood, probably just as difficult to acquire as the cacuminal *r*. Except for the sounds called *r* and produced so far back as at the uvula or the epiglottis (as in a certain Danish pronunciation of *r*, which the Santals will not hear as an *r*, but as a mysterious kind of guttural semi-vowel) most European *r*'s are recognized as attempted *r*'s, which the Santals will render with their own *r*, if they do not attempt an exact phonetical reproduction of the sound they hear.

It is found followed by *h, k, kh, g, ŋg, c, ch, j, t, th, nd, r, t, th, d, dh, n, l, p, ph, b, bh, m, v, w, s*, that is, any consonant except *q, r*, and *ñ*.

*E. g.*, *darha* (pool in a river), *ñurha* (fall), *marhuc' jəm* (leprosy), *parkəm* (bedstead), *qarkhi* (cotton cleaning machine), *urgum* (warm), *jarge* (lean), *kharŋao* (parched, to dry), *sarŋga* (*Mus rufescens*), *irci* (sprinkle), *karcup* (short-haired), *barchi* (an iron stick, spear); *arji* (petition), *sarjəm* (*Shorea robusta*); *car̥ti* (hanger-on), *cor̥tha* (mischievous, rascal), *pur̥tha* (clear); *bhar̥ṇḍo* (whirlwind), *kur̥ṇḍa* (rope to tie buffaloes with); *arrao* (bellow), *ghir̥ri* (a species of lizard), *g̃nar̥ra* (bore); *harta* (skin), *dharti* (the world); *ber̥tha* (in vain); *ardas* (complain), *ter̥d̥ec'* (moonlight); *kird̥hum* (silent); *j̥harna* (a spring), *bir̥ni* (the diaphragm), *j̥ern̄gaha* (saline soil); *or̥lo* (a fool), *b̄or̄l̄om* (a spear), *kh̄or̄l̄on* (chasm); *arpa* (fathom), *kur̄pha* (cultivating land in another village than one's residence), *bar̄phai* (advantage); *nar̄ba khar̄ba* (spoil, squander), *khar̄b̄or* (soak), *gar̄bh̄a* (*Briedelia stipularis*), *nir̄bh̄a* (competency), *urm̄al* (jingles), *j̄armak' tormak'* (forlorn), *sorm̄bot'* (unexpectedly), *er̄rel* (brother-in-law), *or̄wal* (curtain), *par̄wa* (pigeon), *ar̄si* (mirror), *mar̄sal* (light), *bursi* (hen's nest, bit of broken earthenware vessel).

89. *L*, the open divided dental or lateral dental, as it is also called, is articulated by placing the point of the tongue against the upper front teeth and permitting the air to pass along on both sides, or, as in other languages, on one side of the tongue.

The Santal *l* is as different from the English *l* as Santal *t, d* or *n* are from the corresponding English sounds.

The Santal *l* is generally voiced, but may also be heard voiceless, especially when following an unvoiced consonant.



It is very much the same sound as that of the *l* of south eastern Norway, *e. g.*, in *le, lille, vesle*.

In Santali *l* is found initial, medial and final, as in *lil* (blue), *lin* (press), *sal* (Indian bison), *bale* (tender).

It is found followed by *h, k, kh, g, ng, c, ch, nj, t, d, dh, t, d, dh, n, p, ph, b, m, v, w, s*.

*E. g.*, *lelha* (stupid), *lulha* (stump, back of hand), *telhec'* (a certain tree), *lilkar* (dupe, wheedle), *palkui* (hair mixed with fair-coloured or grey dots), *ulku phulku* (oppressive), *ulkha ulkhi* (stuffy), *kulkhi* (closet for worshipping ancestors); *alga* (easy), *cilgœ cqlgœ* (woman's gait), *telnga* (stick), *lalci* (entice), *pilchu* (original, first human pair), *malcha* (stain), *telngo* (stretch the legs out), *ulta palta* (disorderly); *khildu* (frolic), *ulqha* (tuber of the lotus), *galta golat'* (daft), *belteñ* (very tender, callow), *aldœm* (in general, superficially), *kalde* (snatch up), *caldha* (flat piece, slab), *tulni* (similar, equal); *silpiñ* (door), *jilpit'* (close one eye), *tulpa* (short cut); *ulpha* (spare, unemployed), *kelbot'* (recover, put on flesh), *kilbi* (bewitch), *kolma* (a certain variety of rice), *tilmiñ* (sesame), *dhilvan* (hang, suspended), *dhalwa* (small board), *kolsa* (kick), *khalsa* (free from), *polso* (dim).

90. *Ṭ*, the dental checked consonant, will be mentioned below. See para 107.

## The Labials.

### *a. The stopped Labials.*

91. *P* is the voiceless, unaspirated labial stop, produced as in other languages by closing the lips and then suddenly opening them again thus making an 'explosion'. The Santali *p* differs from the English and, *e. g.*, the Danish *p* in being quite unaspirated.

It is found initial, medial and final (this not frequently, and perhaps mostly in loan words).

It is found followed by *k, c, t, th, ṇḍ, r, t, n, r, l, s*.

*E. g.*, *pap* (sin), *apa* (father), *lap, lapa* (extended horizontally; *upkar* (help), *dopkoc'* (knoll), *apcoe* (spoil), *gopca* (take and carry on the back); *hupic'* (small), *cepte* (flat-nosed), *apthao* (vie); *phupṇḍa* (mouldy), *aprē* (self), *epre* (not agree, out of line), *haprak* (big), *hapta* (week), *suptic'* (foot), *jhapni* (*Oxalis sensitiva*), *pipni* (eyelid); *aprār* (diverge), *eprer* (miss one another), *upria* (strange), *thapra thopro* (small brushwood); *aple* (climb, as a pole), *ṭople* (high cheek-boned) *ṭuplak'* (small toy basket), *bapla* (marriage); *opsor* (leisure), *lipsa* (slack), *jhopso* (overcast, cloudy).

92. *Ph* is the aspirate of the preceding and needs no further description. It should only again be pointed out that the Santali aspiration is not the same as that found in our North European languages, and that the Santali *ph* is an aspirated *p*, not a way of writing *f*, a sound not heard in Santali.

*Ph* is found initial and medial, and possibly final in a couple of words.

Followed by another consonant the writer cannot remember to have observed it in more than three words, where parallel words with unaspirated *p* are also in use, viz in *kuphṇau* and *kupṇau* (to retain), *qphsor* (besides *opsor*) (leisure), and *kaphri* (besides *kapri*) (African), all borrowed from Hindi.

*E. g.*, *phepra* (perverse), *phākrāk* (wing), *baphao* (to steam), *kaphariu* (quarrel); *kuph* (phlegm).

93. The Santals not having and not being able to pronounce *f* (they learn, however, easily enough to articulate this sound when shown how to do it), the aspirated *p* (*i. e.*, *ph*) is used instead in borrowed words. In this they only

follow the other peoples living in these parts who none of them have the *f*. The Arabic *f* (ف) is also rendered by *ph* in words come in through Hindi (Hindustani).

*E. g.*, *phut bəl* = foot ball; *phayer layen* (or *len*) = Engl. fire line; *phīc* = Engl. fees; *phores* = Engl. forest (used in Assam about land under the administration of the Forest Dept.); *pharak* = Pers. (Ar.) فرق (apart); *phauti* = Pers. (Ar.) فوتي (spare, ownerless, unused); *phaudari* = Pers. (Ar.) فوجداري (relating to crime); *gaphil* = Pers. (Ar.) غافل (negligent); *dhapadar* = Pers. (Ar.) دفعدار with removal of the aspirate to the first consonant; *pharsi* and *parsi* = Pers. (Ar.) فارسي and پارسي (language, Persian).

94. *B* is the unaspirated voiced labial explosive produced like *p*, except that it is voiced.

The sound is very much like the English or Norwegian *b*.

It is found initial, medial and final as in

*bar* (two), *ban* (no), *baba* (father), *lab* (profit), *ub* (pour), *dhob* (form, shape).

It is found followed by *k* (?), *g*, *j*, *d*, *dh*, *r*, *d*, *dh*, *u*, *r* and *l*.

*E. g.*, *dobkao* (uncertain word for to silence); *abge* (a certain kind of spirits), *ubgar* (help); *ubjos* (tail), *kabjan* (stooping), *kobjo* (stooping); *jabdaka* (hollow in the ground); *gab-dhulan* (stout), *jodbhao* (wallow in mud); *khabraha* (gluttonous); *gabre* (appropriate, pilfer), *babrē* (Brahmin), *thubra* (old bachelor); *lebda* (throw); *kubdha* (hump-backed); *lobdho* (fat); *kabnuc'* (stooping), *bhabna* (anxiety); *obra* (punchy), *habruk'* (sip with a noise), *kabra* (piebald), *gubri* (excrement); *khablok'* (devour), *babla* (*Acacia arabica*).

95. *Bh* is the preceding consonant aspirated, and needs no further description.

It is found initial and medial as in

*bhar* (commission), *bhqr* (blessing), *bhok'* (to bark), *bhuk'* (a hole); *bhab* (grief); *lubhi* (avaricious).

*Bh* is found followed by *r*, as in

*obhra* (paunchy), *abhra* (ornament), *libhra* (slack).

As a curiosity it may be mentioned that Santals in loan words come in through Bengali have got *bh* to express the English initial *v* (*vide infra* para 98).

96. *M* is the labial nasal, i. e., lips closed as for *b* and the soft palate let down for the passage of the air through the nose. The Santal *m* is found both voiceless (so especially initial and medial and after voiceless consonants) and voiced (so specially before other consonants, and as final).

*E. g.*, *ma* (optative particle), *mama* (maternal uncle), *am* (thou), *ram* (fence with thorns).

*M* is found followed by *h*, *k*, *g*, *c*, *ch*, *j*, *jh*, *t*, *th*, *d*, *dh*, *r*, *t*, *d*, *dh*, *n*, *r* (*br*), *l* (*bl*), *p*, *ph*, *b*, *bh*, and *s*.

*E. g.*, *kamhai* (hinder, loose time), *gamhāṇḍ* (ear formed within the sheath), *dumhē* (to heap); *gomke* (to own), *cemkec'* (handsome), *jamki* (a plaited string, fuse), *damgi* (small hill), *demcok'* (able to stand upright), *humcok'* (toss the head), *gamcha* (a small piece of cloth), *lamjak'* (turn sour, decompose), *ramjau* (persuade), *umjhau* (tire out), *samjhau* (reconcile), *humtak'* (splash), *amtha* (inspissated juice of mango), *cemdeṇ* (bare), *kumdhuc'* (crouch, hump-backed); *kamrī* (servant maid), *cimro* (flexible, ductile), *umta umti* (lascivious), *amdaṇ* (guess, approximately), *umdhi* (drowsy), *omne* (gratis), *tamni* (mattock), *amrit* (*ambrit*) (papaya), *amla* (court official), *mam(b)la* (lawsuit); *Campa* (name of a country), *ampa ompo* (in a hurry), *lamphe* (fresh grass), *camphe* (shallow, flat), *ombak'* (bow kneeling), *kumbet'* (a kind of snare), *jhimbri* (a fish trap), *Hembrom* (one of the Santal septs), *kombro*



(thief), *jambro* (a large rock snake), *kumblan* (get musty, wilt); *bambkao* (to blaze up); *sambhe* (ferrule of the dhiiki), *kambhao* (to stay), *kumbhir* (a piece of wood over a cart axle), *gambhra* (deepest spot in a tank); *amsam* (dysentery), *khamsao* (to cause to gallop), *rimsic'* (tiny), *thumsan* (hideous), *dhumsa* (portly).

*b. The open Labials.*

97. Santali haa at least three of these, viz.,

*v* the denti-labial open voiced sound;

*w* the bilabial open voiced, or the lip-back open voiced sound.

Some missionaries in writing never use the *v*, but always the *w*; they may be under the impression that Santali has got no *v*; and there may be some excuse for such an opinion; investigation will, however, show such to be wrong.

There is no question that there are Santals who have a *v*, pronounced in the regular way by placing the upper front teeth on the lower lip. The writer has observed this over and over again with those who have the best and finest diction. The articulation varies, however, with the individuals, the variation being possibly connected with the fuller or thinner shape of the lips, the thinner lips having a stronger *v*.\*

With many the teeth are not placed *on* the lower lip; the sound is produced by a touch of the lower lip against the front of the upper teeth. This is still a *v*, and is especially found between the vowels *i* and *e* (*i. e.*, between two *i*'s, two *e*'s or *i* and *e*).

The last mentioned *v* is closely related to the above first mentioned *w*, where the teeth are not touched; when

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\* The Santali *v* is not quite so strong a denti-labial as the English *v* in, e. g., *van*. It is a sound nearer the Danish *v*.

articulating this sound the lips are not pointed at all, and the lip opening is not round, but more or less extended; the sound produced is apparently something like the South German *w*.

Santali has also got the lip-back-open sound; but, so far as the writer has been able to ascertain, not the extreme lip protruding kind.

The *w* is the general sound, except in the cases mentioned. Where *v* is used, here and elsewhere, some Santals may be heard pronouncing the first mentioned *w*.

*V* and *w* are only found medial, i. e., between two vowels, or between a medial consonant and a vowel, consequently not followed by any consonant.

The consonants actually found preceding the *w* (or *v*) are *k, g, c, j, t, th, d, nd, r, l, d, n, r, l, s*, that is practically all consonants, except the labials.

Examples: *jivi* (soul), *jivēt'* (life), *livet'* (and *liwet'*) (bent); *ever* (fan), *nawa* (new), *rāwā* (force of personality); *sakwa* (horn-trumpet), *sagwan* (teak tree); *kacwan* (coachman); *gajwak* (go bad, as cooked rice); *le!wet'* (puny and big belied); *paṭwa* (intestinal worms); *aṭhwar* (Sunday); *ṭidvi* (obstinate); *maṇḍwa* (temporary shed at the time of marriage); *liṛuṇa* *thaṛwe* (reel, stagger); *latwak* (faint); *adwa* (sundried rice), *manwa* (man); *parwa* (pigeon); *palwa* (a condiment of pounded tamarind leaves); *aswar* (horseman).

98. Santali has not got these sounds initials or final in words, and the Santals have difficulty in pronouncing them in such combinations.

When they have to pronounce loanwords with *v* or *w* initial, the difficulty is avoided in different ways.\*

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\*No attention is here paid to the large number of words borrowed from Hindi or Bengali when these languages have already adopted a form doing away with an original initial open labial.

An initial *v* in English words is generally rendered by *b* (e. g., *binus* = Venus, *bilej* = village).

Initial *w* is sometimes made medial by placing a vowel in front and attaching the *w* to this; or the *w* may be made into a vowel (*o* or *u*), or even be omitted altogether; e. g., *uwilnama* = will (+ *nama*); *ukil* or *okil* = Urdu (Ar.) دکیل, *vakil* (pleader); *oaris* = Urdu (Ar.) وارث (heir); *oktə* = Urdu (Ar.) وقت, *waqt* (time); *arəntə* = warrant; *askaʔ* = Engl. waistcoat.

*W* may also be heard rendered *b*, e. g., *bisli mison* for Wesleyan Mission.

Final *v* or *w* in loanwords is treated much in the same way, only that an open labial following a vowel melts with this into a diphthong.

As is well known, Bengalis and others have got the idea, that English *v* and *w* (especially when initial) may be rendered by *bh*; following these, and through them, the Santals have got a few instances of this, as e. g., *Bhiktoria* = Victoria, or (without any phonetical necessity) *rebherend* for 'reverend' (thus in Bengali). One wonders whether Mr. Sweet's remarks on the *w* (Handbook of Phonetics, 117) should have anything to do with this monstrosity; what Mr. Sweet here writes "*bh*" (i. e., the South German *w*) is very different from an Indian aspirated *bh*.

99. It is not easy to draw the boundary between the open labial and the semivowel. In writing we have not been entirely consistent. Formerly in many cases an *o* or *u* was written, where now a *w* or *v* is used, and even now we generally use an *u* where it might be correct to use the (*v* or) *w*; e. g., *bhəluə* (a swallow) for *bhəlwə*.

As a semivowel *v* and *w* are used, analogous to *y*,

representing the *u* and *o*, in the middle of root words; this is easier for the reader, and also more correct.

*W* is used to represent the euphonic semivowel heard between two vowels. On this use *vide infra* the chapter on Euphonic semivowels, para 114.

100. *P'*, the checked labial; with reference to this see below under the checked consonants, para 108.

### The Sibilant.

101. *S* is the voiceless open tongue-blade dental, produced by placing the blade of the tongue against the gums with a small opening or channel to permit the passage of the air. It is very much the same sound as that in the Eng. *sink*, *cease*. The front point of contact is the same as with the dentals *t*, *d*, or *n*.

*S* is found initial, medial or final, as in

*si* (plough), *sə* (smell), *as* (hope), *səs* (end), *laser* (sharp).

It is found followed by *k*, *t*, *nd*, *r*, *t*, *n*, *r*, *l*, (*p*), *b*, *m*, *mb*, and *w*.

*E. g.*, *iskir* (massage), *uskur* (incite), *kaskəm* (cotton), *raška* (joy); *aštān* (indisposed to work), *tešta* (seek for, exert oneself); *bəsndi* (small fly), *bhosndon* (slovenly); *gusri* (small bundle of paddy), *lesrək* (plump down); *estə bestə* (be restless); *posta* (kind of spotted deer); *kisni* (the maena), *dhasna* (hill side), *asrāt* (huge), *səsrəc'* (grass hopper), *həsrət'* (drag, move), *lasrə* (garrulous); *hāšli* (necklet), *bāslə* (adze), *muslə* (Mohammedan); *ispat* (steel); *kəsbət'* (hide huddled up); *əsməo* (be reduced); *kəsmar* (a tree), *kismət* (be occupied with); *kəsmbet'* (short-necked), *kusmbi* (whore); *aswari* (rider).

102. With regard to the sibilant it should further be remarked, that the Santals have only the *s*-sound described. Even before a cacuminal *t* it is not altered to the cacu-



minal or supradental *s* found in other languages under similar circumstances. Santali has the same sibilant as the Bihari or Eastern Hindi languages; in this as in many other respects it phonetically follows the languages mentioned, much more so than it does Bengali, which, as is well known, has not in the common spoken language got a dental sibilant. In regions where the Santals are living among Bengalis they may sometimes adopt a palatal *s* (*sh*), especially if they have had some school education, and sometimes some people may be heard attempting a lisping kind of imitation of the Bengali sibilant. This is all, however, more or less individual vagaries, not very successful. To the average Santal the voiceless dental *s* is the only one.

When rendering any other *s* in borrowed words the voiceless ones become dental voiceless *s*, and a voiced sibilant a *j* or sometimes *c*. Take, e. g., all names adopted from Bengali. To attempt to introduce *Sham* for *Sam*, etc., shows small estimation of Santali phonetic proprieties.

E. g., *sabasi* for Pers. شاباشي (praise); *phīc* = Eng. fees; *kompōj* = compose (printers' work).

A voiced *s* is not heard in Santali.

There may, as previously mentioned, be traces in Santali that an original *s* has been converted into an *h*.\*

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\*As a curiosity may be mentioned that *s* is one of the consonants last mastered by Santal children. They use *c* instead. The same is apparently the case with Nepalese and Tibetan children. The writer has in Darjeeling heard both kinds of children calling out after him: *Cab*, *calam*, *bokcic*, i. e., *Sab* (for *Saheb*, a contraction often used in address by servants), *salam*, *bakshish*! They are taught early. Sir George Grierson in a letter to the writer mentions a similar observation from Rangpur (East Bengal). A grandchild of a local raja was brought before Dr. Grierson and pointing to him said *cab*, meaning *Saheb*. He adds: here again we have a child saying *c* before he can say *s*, which is the more remarkable in Rangpur, where adults all pronounce *c* as *s*.

## The Checked Consonants.

103. The Santal language has four checked consonants, belonging one to each of the four principal classes of consonants, viz., one velar or guttural (*k'*), one palatal (*c'*), one tongue-point dental (*t'*) and one labial (*p'*).

These sounds are foreign to our European languages, and their nature was, to commence with, partly misunderstood. When once their nature is recognized,\* they offer no real difficulties and it is fairly easy to learn to articulate them; the tongue has not to be stretched or twisted in any unfamiliar way; they are the four consonants *k*, *c*, *t* and *p*, checked in the middle of being pronounced; that is to say, the consonant is formed in the mouth, and then deliberately checked; there is no off-glide.

When this is realized the principal thing left to be decided is, whether the consonant is voiced or voiceless, *i. e.*, whether it is a *k*, *c*, *t* and *p*, or a *g*, *j*, *d*, or *b*.

Before proceeding to describe the four sounds in detail, we shall therefore see what is to be said with regard to this question.

Among those who have had to write these sounds no one, so far as the writer can remember, has seriously thought of using the voiced (soft) consonants as the substrata in the Santali language.

In the Munḍari language on the other hand missionaries have done so and are doing so still. The writer of this is not wholly unacquainted with Munḍari, and if one has to rely on the ear alone, it may be acknowledged that in some of the Munḍari dialects one might be somewhat in doubt as to whether it is a voiced or a voiceless consonant.

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\*The late Mr. Skrefsrud was the first to recognize and describe these sounds (in his Grammar of the Santhal Language, Benares, 1873, pp 8-11).

Moreover, if one has been accustomed to write *b'* and *d'* (for the two first checked consonants Munḍari writers use only diacritical signs added to the vowel), it is quite easy to understand that one believes to hear a checked *b*, or *d*, but that does not make it a voiced consonant.\*

In the Journal and Proceedings of the Asiatic Society of Bengal for May 1910 a German missionary from Chaibasa has written a somewhat hot protest against the use made of the hard consonants and also of the open vowel sounds† in the Munḍari section of the Linguistic Survey of India (Vol. IV). The author of this volume, Professor Sten Konow, Ph. D., has written an answer to this in the subsequent No. for February 1911.

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\*Munḍari and many of the other smaller Munḍa languages have been somewhat influenced by foreign languages, especially by Hindi and in the south and south-west by Dravidian languages, both grammatically and phonetically, considerably more so than Santali has been influenced, rather against what one might expect. The general impression is, I believe, that the Munḍas and others are more "the genuine article" than the Santals, less spoilt and less influenced from outside. However this may be in other respects, it does not apply to the language. Santali has certainly been and is being influenced from outside, but, I believe, not so much as the others. In Santali the foreign influence is making itself more strongly felt now than formerly; it has, however, all along been more the vocabulary than the grammar which has been exposed. The Santals have borrowed and are constantly borrowing foreign words; but these are generally given a Santali-phonetic garb and properly incorporated in the language. One might express it so that Santali is less than the other Munḍa languages adapting itself to foreign languages, and adapts borrowed matter to suit itself.

I may be wrong, but one gets the impression that the checked consonants in some of the Munḍa languages have commenced to disappear and to be substituted by the corresponding voiced consonants, as always happens when the off-glide is taken on and the check done away with.

† He contends that there are no open vowel sounds in Munḍari, and that if any consonants are to be used for the checked ones it ought to be the voiced consonants. He says it is a neutral sound.

I cite Dr. Konow :—"Like other consonants the stops\* 'consist acoustically of three elements, the consonant itself, and its on- and off-glide.' Glides are 'transitional sounds, produced during the transition from one sound to another.' 'The on-glide after a vowel is generally voiced.' The off-glide is always voiceless after voiceless stops. In the case of *g, j, d, b* we may, according to Mr. Sweet, distinguish three different kinds: (1) voiceless stop and voice-glide as in *go*, when no vowel precedes; (2) voice-stop and voiceless glide as in *egg*; (3) voice-stop and voice-glide, as in *eager*. It will be seen that many 'soft' consonants are actually voiceless, *i. e.*, hard, if we do not consider the off-glide. Final stops are, more especially, very often voiceless." - - -

"If the difference between 'hard' and 'soft' rests with the final part of the consonant, *i. e.*, with what phonetic scholars call the off-glide, and this off-glide is missing, the vocal chords cannot vibrate. The consonant cannot accordingly be voiced. - - It must consequently be voiceless. - - The term voiceless is a negative term, and such sounds as are devoid of voice must necessarily fall under it." Thus far Dr. Konow.

The checked consonants are in Santali voiceless.

103. The four checked consonants (or semi-consonants, as they have also been called) which the Santal language has got are all of them stops, as they must be; they have above been characterized as consonants without the off-glide. This is, however, a negative statement which needs some addition to give a proper idea of these very peculiar sounds. When one of the corresponding full consonants is articulated, the air passage is momentarily closed at a particular point,

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\*The words between inverted commas are citations from Mr. Sweet's *Primer of Phonetics*.

but only to let the air current pass on with the ordinary off-glide on releasing the stop.

The peculiarity of the sounds under discussion is that when the particular stop has been effected, there is a distinct check, cutting off the air current which is not permitted to get out, until the stop has been released and the tongue- or lip-position is so altered as to let nothing more be heard of the consonant or its off-glide; when the air current passes out, it makes a fresh start, so to say. There is no previous off-glide changing into an on-glide. This check being a somewhat "violent" proceeding, it gives to these sounds a jerky character, the more pronounced the further back in the mouth the closure is effected.

The check of the air current is so strong that it is felt right back to the throat, which seems to be simultaneously closed.\*

If the soft palate is lowered a little at the time, some of the air may escape through the nose. This does not happen in Santali, but may be the case in other Muṇḍa languages and probably is what gives rise to the "*n*-Nachschlag" which Dr. Nottrott mentions in his Muṇḍari Grammar.

These checked consonants being sounds cut off in the middle can naturally only be found at the end of a syllable, generally at the end of a word; in the case of *k*, the checked consonant is found closing a syllable in the middle of a word; and *t'* at the end of a verbal suffix is found closing a syllable in the middle of suffix and infix combinations.

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\*Mr. Skrefsrud describes these sounds as being "pronounced by sharply inhaling the breath." This is not wholly correct. What he calls the "inhaling" is the check of the air current making itself felt backwards as a reverse motion. How the check of the air current is articulated, the writer has not been able to ascertain. It is apparently not quite the same as the implosive stop which Mr. Sweet mentions (Primer of Phonetics § 130).



The checked consonants must always be preceded by, but can never lead directly on to a vowel, nor to a consonant, there being no off-glide.†

After these general remarks only a few words will be necessary to describe each of the four sounds in question.

104. *K'* is a *k* without the off-glide, the air current being sharply checked, simultaneously with the tongue being

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† These checked sounds are found in all the Muṇḍa languages, but are not properly recognized by most of those who have written on these languages. With regard to Muṇḍari Rev. J. Hoffmann in his Muṇḍari Grammar says: "It is, I believe, quite impossible for any foreigner to acquire a perfectly correct pronunciation of the peculiarly checked vowels which occur so frequently in Kholarian languages. All the vowels may be thus checked. This peculiar sounding of the vowels may be described as follows: The pronunciation of a vowel, commenced in the ordinary way, is suddenly checked by a rapid partial contraction of the muscles used in its formation, and then, by a relaxation of those muscles, the breath or sound is allowed to flow out without receiving any further modulation. This process gives to the vowel the sound of two vowels, of which the first is very distinct, smart and short; whereas the second sounds somewhat like a slight short echo of the first."

This explanation refers to what is really the checked *ḳ* and *č*. As to the two other checked consonants, the same author says: "The consonants *b* and *d* preceded by vowels are frequently treated in the same manner." "The consonant *b'* thus checked sounds somewhat as though it were followed by a slight *m*; *ub'* = *ub-m* The consonant *d'* sounds as if it were followed by a slight *n*, *med'* = *med-n*."

Mr Burrows in his Ho Grammar says, "These checked vowels undoubtedly occur in Ho", but he makes no attempt to explain their nature.

Mr. Drake in his Kurku Grammar has recognized the sounds correctly.

Some years ago the writer had occasion to make some special investigations with regard to a number of the Muṇḍa languages; there was no difficulty in recognizing the four checked consonants in any of the languages looked into; only in one instance some uncertainty was felt whether it was *č* or *ḳ* that was heard following an *i*. The question was, however, easily solved by testing into which full consonant the checked one was altered.

It is a mistake to speak of checked vowels in these languages.

put into position for articulating a *k*, and not permitted to pass out, until all traces of the *k* are done away with.

The *ḳ* seems sometimes to be formed further back than the ordinary *k*, the place of articulation somewhat depending on the vowel preceding; Mr. Skrefsrud says, that "the Arabic *'ain* when having the *tashdid* is very much like it." I believe this is so in some cases, that is to say, the two sounds may seem similar to the ear.\*

When altered into its corresponding full consonant *ḳ* becomes *g*.

105. The checked *ḳ* is a very frequent sound in Santali, being used :

in the inanimate determinative suffix (*lak'*),

in the indirect object (dative) tense suffix for inanimata in the Indeterminate (Future) and from this derived tenses of the active verb (*ak'*), and also in the Imperative with indirect inanimate object,

in the suffix of one form of the Anterior Past (*lak'*),

in the verbal suffix forming the Medium and Passive in the Indeterminate (Future) and from this derived tenses (*qk'*, *ok'*), also in the Imperative in the Medium and Passive,

in the verbal suffix of the Indeterminate (Future) and from this derived tenses both Active and Medium of the Intentional (*kak'*, *kqk'*, *kok'*), and in the Indeterminate (Future) Medium of the Optative (*kqk'*, *kok'*),

as an infix in the Performative form (*-ḳ*),

and as an infix in some distributive numerals (*-ḳ*),

besides being the final sound of many words.

It may follow any vowel.

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\*Danes when first hearing the *ḳ* are liable to think that they hear their "stödtone"; but this is produced "by a cessation of expiration while the glottis is still closed for voice" (Sweet, Handbook p. 65), in other words, is a glottal stop.

When used in the Performative form of the verb, the vowel preceding it is, in monosyllabic words commencing with a vowel, repeated with full stress;\* in other (mostly dissyllabic) words a more or less pronounced slight echo of this vowel is (often, but not always) heard when taking up the rest of the word. Where it comes before a single middle consonant, the vowel-echo is often not heard.† If *k'* is used as an infix in words with a middle consonant combination, the vowel is generally echoed; when the middle combination consists of a nasal + another consonant, the *voiced* vowelless nasal is, however, capable of leading over to the following.

Examples : *boge-ak'* (that which is good); *agu-ak'* (that which is brought), *ql akat'-ak'* (that which has been written); *dul-ak'-me* (pour on it); *jutuc'-ak'-ae* (he will add to it); *benget'-ak'kan tahzkanako* (they were looking at something);

*nel-qk'* (be seen); *sqrqm-qk'kan-ae* (he is feeling bashful); *idik'* (be taken off); *ikak'* (be forgiven); *sorok'* (approach);

*gid-i-kak'-me* (throw it away); *lqi-kak kan-an* (I am telling it); *thir-kok'-ae* (he will keep quiet); *rqr-lak'-ae* (he spoke); *em-kqk'-am* (would you be pleased to give?);

*qlql* (to write), *ukur* (flay), *eker* (sow); *ak'agu* (bring), *ikidi* (take away), *ik'iral* (by eights), *ek'ae* (in sevens), *ak'akrin* (sell); *cak'ke* (stack); *bik'car* (judge), *bak'ncao* (save), *bok'nga* (offer to the spirits); *tik'irpit* (satisfy); *gok'rq* (help); *bak'n-di* (make a straw bundle);

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\* The expression "with full stress" should not be understood as if the vowel preceding the *k'* had the principal stress of the word. This will be on the ultima.

† The vowel-echo mentioned is perhaps not entirely absent, except in words with single medial velar, or a medial velar preceded by the velar nasal (*n*). It depends to some extent on the speed of the speaker.

*ak* (a bow); *ṛk* (moan); *lek* (be dissolved); *ek* (interj., namely); *ok* (smoke out); *rok* (sew, butt); *uduk* (show).\*

106. *C'* is an abruptly checked *c* without its off-glide; the air current is sharply cut off simultaneously with the tongue being put into position for articulating a *c*, that is, by placing the tongue front against the palate, whereupon the air current is permitted to pass on, the off-glide and all traces of the *c* being eliminated.

The position of the tongue makes it easily understood, why some people have thought, that they have heard an *i* in connection with this sound, in consequence of which they have (as remarked in the note to para 105) written it *i:*. There is no vowel in it.

When altered into its corresponding full consonant, *c'* becomes *j*.

After *e* and especially after *i* an untrained ear may confound the *c'* with *t'* or *k*; it is, however, never really difficult to find out which is which; it is always possible

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\* With reference to *k* it may be remarked, that some missionaries for many years would not consent to call it *k*; where *k* was spoken they were satisfied with using an apostrophe (') after a vowel. It is perhaps not so much to be wondered at, that some should fail to recognize the sound, in spite of the fact that it is in certain circumstances changed to a *g*; they should not, however, persist in this mode of writing, when they have once been shown the true nature of the sound. Up to a few years ago one or two were still found sticking to their old practice; and, of course, they have had disciples among the Santals. It is to be hoped this practice will soon be something of the past only. At one time the Sanskrit visarga (:) was also used for this and especially for the palatal checked consonant (*ḥ*), for the last one often with a prefixed *i* (*i:*). I suppose this will also soon be something of the past. The Sanskrit visarga stands for an altogether different sound, which has nothing to do with checked consonants; and when using the Roman alphabet what comes in is the colon, a sign of punctuation, to use which is not to be recommended. Anyhow, both the pure apostrophe and the colon (visarga) show that those who use them know that there is a peculiar sound but also that they do not recognize its nature.

to test which voiced full consonant it is, when required, turned into.

*C'* is always final, *i. e.*, nothing following can belong to the same stress-unit; the same is the case with *t'* and *p'*.

It is found following all vowels except *e* and *o*.

*E. g.*, *ac'* (himself), *sac'* (off, interj. to fowls), *ec'* (scrape up fire), *sec'* (towards), *sic'* (little), *sac'* (straight), *uc'* (caper).

107. *T'* is an abruptly checked *t* without its off-glide; the air current is sharply cut off simultaneously with the tongue being put into position for articulating a *t* (interdental or postdental); the air current is permitted to pass on, when the off-glide and all traces of the *t* have been eliminated.

When changed to its full consonant the *t'* becomes *d*.

*T'* being the end consonant of several verbal suffixes is of very common occurrence.

*T'* is found preceded by all vowels.

*E. g.*, *at'* (lose), *-et'*, *-et'*, *ket'* *let'*, *akat'*, *at'*, *kat'* (verbal suffixes), *rit'* (to grind), *got'* (to pluck), *ot'* (mushroom), *ut'* (swallow), *mēt'* (eye), *mucut'* (end).

108. *P'* is an abruptly checked *p* without the off-glide. The air current is sharply cut off simultaneously with the closing of the lips to articulate a *p*, reopening when the off-glide with all traces of *p* has been eliminated.

*P'* when changed into its full consonant becomes *b*. It is found preceded by all vowels.

*E. g.* *lap'* (flutter), *ap'* (perch), *sap'* (catch); *lep'* (flare), *selep'* (antelope), *qhop'* (to knock), *rup'* (collapse), *dep'* *dep'* (satiated); *thep'* (snap or tap with the finger), *thop'* *thop'* (rap), *cip'* *cirip'* (a certain shrub); *kap'* *kop'* (secretly).

109. As already stated, all checked consonants may be altered into ordinary full ones, in all cases to the corres-



ponding voiced consonant. The change from checked to full consonant, when it occurs, is not arbitrary, but is due to certain causes. There seems, however, in the case of the final *-t'* in verbal suffixes to be some laxity in the pronunciation; this laxity may possibly be only apparent and really be due to some development of the language.

In one case, which concerns all the checked consonants, the grammatical meaning of certain forms of the verb is affected; in all other cases the change is purely phonetic and concerns only two of the checked consonants, viz., *k'* and *t'*.

The following details will show when the change is effected, and when not.

A. *In verbal bases.*

(a) When a word ending in a checked consonant is used as a verb, the checked consonant becomes a full voiced one, when the verb is used in a transitive sense and no verbal tense-suffix is added and no object-infix, other than *in* or *e*, is used, viz., in the Indeterminate (Future) tense and the Imperative with a direct inanimate object and with a direct animate object infix commencing with a vowel (viz., that of the first and third person singularis).

(b) When the verb is used in an intransitive sense, the checked consonant is not altered.

(c) Before an animate direct object-infix having an initial consonant no change takes place; the checked consonant remains.

(d) Before the indirect object infix (preceded by *a*) the checked consonant is never changed.

(e) The possessive infix does not affect the rule.

(f) No change takes place before verbal tense suffixes commencing with a vowel, except before *ok'* which is not, however, a tense suffix proper (*vide infra* (g)).

Examples: *Beret'me* (stand up), but *beredme* (put something on end); *gitic'me* (lie down), but *gitijme* (lay something down); *bered-e-me* (raise him up); but *beret'kom* (raise them up); *oqok'me* (get out of the way), but *oqogme* (remove something); *oragae* (he will build a house, from *orak'*, house); *ragae* (he will cry), *ragme* (cry), but *rak'aeme* (cry to him); *magae* (he will cut), but *mak'aeme* (cut for him, never *magae-me*); *jereclam* (you will put fire to), but *jereclam* (put fire to; this last Imperative has the indirect object infix without *k'*): *sabae*, *sab-en-ae*, *sab-e-ae* (he will take hold, -of me, -of him), but *sap'kom* (take hold of them), *sap'lem* (catch us); *midme* (mix into one); *beret'tabonme* (stand up among us); *beredtalem* (put something on end for us); *cedtabonme* (learn for us); *rak'et'ae* (he cries); *gok'akat'ae* (he has promised).

(g) Before the medium suffix *-ok'* the checked consonant is always changed to the full voiced one.

*E. g.*, *get'*, *gedok'*; *mak'*, *magok'*; *mēl'*, *mēdok'* or, *mēndok'*; *up'*, *ubok'*.

(h) When suffixes form part of an (enlarged) verbal base, a final checked consonant is treated as in root-words.

*E. g.*, *inagae*, (he will make it mine, from *inak'*); *-lagidok'* *-lagulok'* (from *lagit'*, *lagat'*); *riniyok'ae* (from *rinic'*, wife, *i. e.*, *ren-ic'*, his one).

#### B. In verbal suffixes and infixes :

(a) The *-k'* of the medium is before another *ok'* altered to *g*; this properly belongs to the same class as that mentioned above, see (g); otherwise it is not changed.

*E. g.*, *nelogok'*, from *nel-ok'-ok'* (be seen); *gedogok'* (be cut, for *get'-ok'-ok'*). The *-k'* of the Intentional and of the Optative is never changed, a second *-ok'* not being added.

(b) The *-k'* of the inanimate infix (in *-ak'*, *-kak'* and *-lak'*) is never changed.

(c) The *-t'* of the verbal suffixes *-et'*, *-ket'*, *-let'*, *-kat'* and *-akat'* is changed into *d* before the direct object infixes *e* and *in'*, but is otherwise kept when constructed with animate direct object.

*E. g.*, *nel-lede-an'*, but *nel-le<sup>t</sup>'ko-an'*, *tu<sup>n</sup>'-akade-ae*, *tu<sup>n</sup>'-akat'-kin-ae*; *agu-kidin'-ako*.

(d) The *-t'* of the verbal suffixes *-at'* and *-akawat'* is changed into *d* before the same (pronominal object) infixes (*e* and *in'*), but not otherwise.

*E. g.*, *lai-adi<sup>n</sup>' ae*, *lai-at'<sup>k</sup>o-ae* (he told me, them); *em akawade-ae* (he has given to him).

(e) The final *t'* of the verbal suffixes is, when immediately followed by the finite *a*, frequently, but by no means always, changed into *d*.

The change is in this case of no great antiquity. When the late Mr. Skrefsrud first came among the Santals (in 1867), it was not unknown that *d* was used instead of *-t'* as here mentioned, but it was of very rare occurrence. Now the *d* has become the rule, not of the language, but with many individuals, especially men, less so with women.

If no finite *a* follows, the *-t'* is invariably preserved.

The change here mentioned has been ascribed to laxity in pronunciation. It is possibly a sign of development with a tendency to improve on agglutination. The change is of the same nature as that mentioned above under (c) and (d), when the *t'* is followed by *e* or *in'*. When the verbal suffix is immediately followed by the finite *a*, this may have the stress, with the result that the preceding syllable melts into one stress-unit with the finite *a*. This requires a glide, and the *d* is substituted for the off-glideless *-t'*.

When the *-t'* is preserved before the finite *a* (which, as stated, is the original custom and still observed by a great

many, especially women, in the villages), there will always be separate stress-units.

E. g., *rər-et' ae* (he speaks) and *rər-edae*, but only *rər-et'*, *rər-et'-kan*, etc.; *-ket'-ae* and *kedae*; *-akat'-ae* and *-akudae*; *lqiket'-ae* (he told) and *lqikedae*, but only *lqiket'ic'* (he who told); *jutuc'-at'-ae* (he added to) and *jutuc'-adae*; *akawat'-ae* and *akawadae*.

C. In a few words a final *-k'* is before a concrete suffix changed to *g*, the only cause for doing so apparently being that the suffix melts into one stress-unit with the last syllable of the base word.

Thus : *eṭak'ak'*, *eṭak'ic'* besides *eṭagak'* and *eṭagic'*, with no difference in meaning, from *eṭak'* (other); *bhugak'* (hole), from *bhuk' + ak'*.

The two words which denote to exist, be, be found, and the negative of this (*menak'* or *henak'*, and *banuk'*) show a similar, but somewhat erratic behaviour. Used about the inanimate it is always *menak'*, *henak'*, and *banuk'*, thus *menak'a*, never *menaga*, etc.; used about the animate the *-k'* is always found before the infixed logical subject in the dualis and the pluralis. The singularis *menak'* or *henak'* throws the *-k'* away and sounds *menaña* (or *minña*, *henaña*, *menama*, *henama*, or *menaea*, *henaea* (I, thou, he is, exists). A side-form *menak'mea* may, however, be heard. In *banuk'* the *-k'* is not eliminated, but is changed to *g* in the first and third pers. singularis with animate construction : *banugiña* and *banugic'a* (note the *ic'* for the logical subject, instead of *i* or *e*), but only *banuk'*, *banuk'a*, *banuk'an*. Used participially *banuk'ic'* is heard besides *banugic'*, never, however, *banugak'*, only *banuk'ak'*. There may be a slight difference of meaning, *banuk'ic'* is "who is not", *banugic'*, "he is not (here)", that is, the first form is used exclusively as a participial construction.

To recapitulate :

The rule underlying the changing, except with reference to the transitive verb with inanimate object in the Indeterminate (Future) and the Imperative, seems to be that when a suffix or an infix commencing with a vowel, or the finite *a* is added or inserted so as to form one stress-unit with the preceding syllable ending with a checked consonant, then the checked consonant is altered into its corresponding full voiced consonant ; the checked consonant is furnished with a voiced off-glide. But when the suffix or infix does not as described melt into one stress-unit with the preceding syllable ending in a checked consonant, no change takes place. When the change takes place, the stress is always on the vowel following the originally checked consonant.

### Certain peculiarities of Santal pronunciation.

In addition to the remarks incidentally made here and there further mention shall here be made of certain peculiarities of the language as to sound, partly recapitulating.

### The Diphthongs.

109. A characteristic of the true Santal diphthongs \* is that, except as stated below, no diphthong will stand in a closed syllable. If, especially in words borrowed from other languages, this should ordinarily be the case, the diphthong is *either* contracted into a single vowel *or* dissolved so that both vowels are pronounced as belonging to two different syllables. As the language does not allow hiatus, a euphonic semi-vowel corresponding to the first vowel is in the last mentioned cases inserted, either *y* or *w*.

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\* Possibly due to the peculiarity that both vowels are fully pronounced, or, in other words, are full vowels.



As examples of the first may be mentioned :—

*ḍan*, a witch, from H. *ḍain* (Skr. डाकिनी); *maḷ*, mile (from English); *leṇ*, line (from Engl.); *kol*, the Indian cuckoo, from H. *koil* (Skr. कोकिल); *ḍar* (run), likely from H. दौड़ (Skr. द्रवत्). For other examples *vide* para 22.

As examples of the second way :—

*phayer layen*, for Engl. fire line, *mayel* for Engl. mile\*.

There is a third way: The diphthong is kept, but the syllable with the diphthong is made an open one, either by adding a vowel after the final consonant and thus letting this commence a fresh syllable; or by taking the final consonant as belonging to a following word commencing with a vowel. This is conform with the elsewhere mentioned Santal way of drawing a consonant, ending a syllable, over to the next. Some very curious examples of this method may be observed in words taken over from English.

*E. g.*, *Paulo* = Paul; *rae tɛngol* = Engl. right angle, the Santal name for the optical square used by surveyors. It might be mentioned, that a not infrequent rendering of "Paul" is *Palus*, the original Greek or Latin *s* being added to a common Santal name *Palu*.

Forms like *Daud*, *Paul*, *Saul* are really impossible with Santals who pronounce them *Dad* (which means ringworm) or *Dawud*, *Pawul*, *Powul*, etc.; I must confess to having used the two last ones which ought to be *Pɔl*, *Sɔl* or *Paulo*, *Saulo*, or something like it. *Daud* is the Mohammedan form.

110. There are a few, likely only apparent, exceptions from the rule about diphthongs and closed syllables.

When a nasal is prefixed (a nasal alone is not found closing a syllable with a diphthong) to the consonant com-

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\* I once asked a Santal: "What is your name for this stone?" (we were driving past a milestone). He answered: "Some call it *mayel*, but those who have learnt a little more say *maḷ*"!

mensing the following syllable, a diphthong will suffer this, and it looks as if this nasal might close a syllable with a diphthong, if we follow the elsewhere mentioned peculiarity, that with a consonant combination in the middle of a word the first consonant is in pronunciation taken to the preceding syllable and the second to the following one. The following consonant, although possibly originally belonging to the first syllable, is pronounced as belonging to the second.

The explanation may possibly be, that the nasalization acts as a kind of on-glide to the following consonant (which is always a voiced one); part of this nasalization acts as a nasalization of the diphthong, whilst part of it really belongs to the consonant. The closing of the syllable is in any case only apparent, a nasal being only a mouth stop; the air passage is open through the nose.

The nasal may according to the nature of the consonant following be *n*, *ṇ*, *ṅ*, or *ṇ̄*.

E. g., *āonda āṇḍi* (confused), *hāṇḍi* (extortion), *belāṇḍja* (a certain plant), *ṭaṇḍi* (a pigeon house), *paiṇḍan* (or *pṭiṇḍan*, a kind of anklets).

It is not seldom to see Santals write *āoda āṇḍi*, etc.

Two other exceptions are, that a diphthong may be found in syllables ending with *h* or *k'*.

In these cases an *h* does not properly close a syllable. With the *k'* the explanation is more difficult; it may be that there is a slight nasalization or rather opening of the nose-passageway in pronouncing the *k'*.

These exceptions are very few—except with the *k'* forming the suffix of the Medium or Passive Indeterminate (Future) of verbs ending in the diphthongs *ao* or *au* (likely mostly borrowed from some Hindi dialect).

*Auh auh* (cry of pain), *ṭuk' ṭuk'* (onomat., the call of the bull frog), *laraok'* (be moved), *bujhauk'* (be understood).

Words ending in other diphthongs take the unabridged -ok' to form the medium (*lai-ok'*, *kamhqi-ok'*, *rohqe-ok'*, etc., a (generally not written) euphonic semivowel being used as a glide to the suffix.

### The Aspirates.

111. (a) The articulation of the aspirates has been discussed above, paras 51-54. It will be remembered that Santali has a full set of aspirated letters; practically every letter may be aspirated or followed by the aspirate (*h*) in the middle of a word; but except with those consonants which are found used initially aspirated, it may be doubtful whether the aspirate is part of the consonant, or—as is just as likely—belongs to the following syllable.

It might be questioned whether the aspirates are original sounds with the Santals. I believe they are this, when initial and middle; but likely not as finals, where they are found in words borrowed from Bengali or Hindi, and generally only written, but not spoken. The “on-silence” glide may in such words be very audible, but this is not the same as the aspirate.

(b) The aspiration seems in some cases to be felt as emphasizing an action (cp. *qhismis*, for Engl. dismiss, *hokqe*, for *okqe*)\*. Cf. parallel forms like *ciri cunti* and *chiri chunti*, *cabar cubur* and *cabhar cubhur*, etc., where the aspirated forms denote some stronger action or sound.

In the demonstrative pronouns and adverbs a prefixed *h* denotes distance: *nui* (this one here), *uni* (that one there),

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\* It is a remarkable fact very commonly observed in the Aryan languages of India that the aspirate is the stronger part of an aspirated consonant, remaining when the consonant itself has been lost. We have also in Santali a few examples of the aspirate remaining when the consonant is thrown away; parallel forms, with or without the consonant, are generally found. Thus: *dhabič* and *habič*, *dharič* and *harič* (all meaning unto, up to).

*huni* (that one over there); some energy is needed to get into contact with what is referred to.

With initial *n* the aspirate gives a very peculiar meaning, of "to or on the side." This is found exclusively in the so-called laterally demonstrative pronouns and adverbs that ordinarily commence with an *n*: *nhui* = this one on the side; *nhande* = over there on the side (not straight in front of the speaker).

112. Within the same stress-unit not more than one aspirate is heard; if we should regularly have two, the aspiration is done away with in one, generally the last place.

This rule does not affect words commencing with an *h*.

If two syllables are found following each other both commencing with an aspirated consonant, we have two distinct stress-units, i. e., really two separate words.

The whole Santal vocabulary may be searched through, and this rule will be found standing.

The rule is especially observed in the Performative (*i. e.*, the reduplicated) form of the verb in words commencing with an aspirated consonant. In such forms the aspirate is kept as initial, but omitted in the second syllable of the fresh word.\*

*E. g.*, *bhubul* (not *bhubhul*) from *bhul*; *phepel* from *phel*; *phēpet'* from *phet'*; but *thar tharao* (two words); *pho pho* (ditto); *hahar* from *har*; *hahandi* from *hāndi*.

The same rule is attended to when adopting Indian words with two aspirated consonants. *E. g.*, Hindi *छुछी*, Santali *chuci*

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\* I have heard some Santals who apparently do not follow the rule in the verbal form mentioned. I have no doubt that the rule as given is a genuine law of the language, with possible individual deterioration. It was a Santal who first called my attention to it. My strongest reason for thinking as stated is the above mentioned fact, that two aspirated consonants are nowhere found following one another in any single (base) word in the language.

(or *cuchi*, with the second aspirate kept); H. भभराना, S. *bhab-rao*; H. घिघियाना, S. *ghigiau*; H. तम्भाना, S. *tambhao* (the second aspirate kept); H. थोथना, S. *thotna*.

Those who keep the aspiration really make two stress-units, *i. e.*, dissolve the word.

### Euphonic semivowels.

113. It has previously been mentioned that the Santal language cannot stand hiatus. When such would occur during the agglutinating process, it is obviated by the use of one or the other of the two semi-vowels *y* or *w*.

The *y* and the *w* are not used indiscriminately, and in certain cases it depends on the meaning which one is to be used.

On account of the cumbersomeness of always writing these letters there has been considerable inconsequence in their use or omission in writing.\*

Our custom has been as follows :

In root words three vowels are often found following one another; in such cases two of these will always form a diphthong, and the sequence will be either a diphthong and a vowel or a vowel followed by a diphthong. In the first case, *i. e.*, a diphthong followed by a vowel, the middle vowel being *e, i* or *o* we generally substitute the semi-vowel for the second vowel (*i. e.*, *y* for *e* or *i*, and *w* for *o*), although strictly speaking this is not phonetically wholly correct; we

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\* These two, *y* and *w*, are constantly spoken although far from always written. It is quite instructive to see, how a Santal who has learnt to write without getting so far as to be trained in the "proper" Santali orthography, without hesitation introduces these letters where he feels he has the euphonic sounds.

Any one in doubt might listen to a Santal singing; the euphonic semi-vowel may then be heard often as if it was a sound belonging to the suffix; such as *-yet'*, *-yen*,



have thus written, *ḍaya* (grace), *māyā* (compassion), instead of *daea*, *māeā* or *dae-ya*, *māe-yā*.\* To write *daeya*, etc., would be unnecessarily cumbersome. And analogous with this *rāwā* for *rāōā* or to be more correct *rāowā*. Inside root words the two semi-vowels are consequently not exclusively euphonic, but also stand for part of the root.

Where the combination is a vowel and a diphthong the three vowels are generally left alone. Thus *eae* (seven), and not *eyae*, as it is generally spoken, and frequently written by uneducated Santals; *riāu* (ask to come along), not *riyāu*.

Apart from the cases mentioned the *y* and the *w* are almost exclusively euphonic, marking the sound or audible glide used by the Santals to mediate the transition from one vowel to another when a suffix or an infix or the personal pronoun subject, commencing with or simply consisting of a vowel, is added to a word ending with a single vowel or a diphthong.

With words ending in a diphthong the *y* or the *w* is used in accordance with the second vowel of the diphthong; except in words ending with a diphthong the second vowel of which is *e* or *i*, and before another *e* or *i*, this euphonic semi-vowel is not, however, generally written.

With words ending in a single vowel the euphonic semi-vowel is *y* before suffixes, etc., commencing with *e* or *i*, and *w* before those commencing with *a*. Words ending in *i* and *e*, however, take *y*, with the qualification that before the indirect object verbal suffixes they may also have *w*. This last *w* is not, however, properly speaking euphonic, but probably a remnant of an old suffix.

The sounds heard between the verbal finite *a* and a verbal base ending in a single vowel is not exclusively

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\* Note the difference in pronouncing this word and the very frequently heard *ma-ya* (now you chap!).

euphonic, but also a verbal suffix. To show this we do not write *y*, but *e* or (after *a* and *u*) *i*, although the sound of a euphonic *y* is also heard in addition to the verbal suffix, but not written. Words ending in *e*, *e* or *i* have the here mentioned suffix amalgamated with the final vowel of the verb, which is lengthened. A euphonic *y* is heard in pronunciation, but generally not written.

When the subject pronoun *e* (or *i*) is added to the word preceding the verb and this ends in a single vowel, either a diphthong is formed, or the *e* is added with a euphonic *y*. When added to the finite *a* of the verb the general rule is that it forms a diphthong (*ae*); but it is not infrequent, and is especially common with women, that the *e* is kept separate with a *y* as a euphonic glide between the two vowels.

Examples: *ata-y-et'ae* (he roasts); *idi-y-et'ae* (he takes away); *idi-y-ena* (was taken away); *baɖae-y-et'ae* (he knows); *hoɛ-y-et'ae* ("he" blows); *uni-y-e bae-y-ena* (he was hidden away); *kana-y-e* (or, *kanaeye*) he is, a frequent women's pronunciation of *kanae*. But *rarae-ae* (he will loose), *agui-ae* (he will bring), because here the *e* and *i* are not euphonic; fully spelt it ought to be *raraɣae*, *aguiɣae*; *ata-w-añme* (roast for me); *ata-w-aɖeae* (for *ata-w-aɖe-y-ae*, (he roasted for him).

I am sorry we have not been wholly consequent in our spelling with regard to these semi vowels. Especially one constantly recurring word has for the sake of convenience been misspelt, viz., *hoɛ* (become), where we have partly used the *y* as in root words, writing *hoɣena*, *hoɣet'a*, *hoɣok'* instead of *hoeyena*, *hoeyet'a*, *hoeyok'*.

Further examples of our inconsistencies :

*idi akat'* (spoken *idi y-akat'*), *bɔlɔ akan* (spoken *bɔlɔ-w akan*); *lɔiɔñme* (tell me, for *lɔi-y-añme*, may also be heard pronounced *lɔiwañme*, where *w* is the remnant of an old suffix);

*bujhauaeae* (he will explain to him, for *bujhau-w-ae y-ae*);  
*emaeae* (he will give him, for *emae-y-ae*.)

The Medium suffix *-ok'* after vowels as a rule loses its *o* and the *-k'* is joined to the verbal base so that no euphonic semi-vowel is required. There are a very few exceptions to this rule. The monosyllabic *si* (plough) is generally *siok'* (pronounced *si-y-ok'*), but *sik'* is also heard; words ending in *-ae* or *-ai* take the full *ok'* with the generally unwritten *y* as euphonic semi-vowel; and monosyllables in *-ao* or *-au-* may take the full *ok'* with a euphonic *w*; *baɖaeok'* (for *baɖae-y-ok'*) *lɔiok'* (for *lɔi-y-ok'*), *bhaok'* and *bhao-w-ok'*

When a verb ending in a vowel is constructed intransitively, a *w* and not a *y* is used before the finite *a*; e. g., *lɔlɔ-w-a* (it is hot), but *lɔlɔe-ae* (he will heat it).

The euphonic semivowels are only slight sounds, never very strongly pronounced.

### Letters commencing and closing syllables.

114. No Santal word commences with any of the following consonants, viz., *ñ*, (*y*), *ɳ*, *r*, *v*, *w* or any of the four checked consonants, *i. e.*, besides these last ones, not with the velar or cacuminal nasal, not with the cacuminal *r*, and not with the semivowels or the open medio-palatal and open labials; *y* has been put in parenthesis; it is not, except in a couple of words, found properly initial in ordinary Santali language, but is so used in singing, in certain cases referred to below (para 122).

The nature of the checked consonants makes it impossible for these to be initial; the semivowels or the open medio-palatal or open labials untaught Santals apparently cannot pronounce except after a vowel or certain consonants; the cacuminal nasal is possibly not an independent sound in Santali.

Words, especially names, taken over from European languages and in their original form commencing with a consonant not used as an initial in Santali (practically : *y*, *v* and *w*) are treated in several ways; *vide supra* paras 67 and 98, where some examples are given.\*

115. A Santali word may commence with any † vowel § or diphthong and any consonant not mentioned above.

116. Santali words may commence with a single consonant, but not with two or more.

When foreign words commencing with more than one consonant have been adopted one of the following methods has been followed :-

(a) The combination has been kept. This is found, I think, exclusively in words introduced by foreigners, and requires no little exercise to be mastered by a Santal.

*E. g.*, *Prqbhu* or *Prabhu* (Lord), which an untaught Santal will without fail try to render by *Purbhu* or *Perbhu* or *Parbhu* (all three forms are heard).

(b) A vowel is introduced between the two initial consonants, generally, though not always, the first vowel of the original word.

*E. g.*, Christian (which educated Santals have learnt to pronounce fairly well) is generally rendered *Kiristan*, the first *i* being pronounced particularly long and with stress when the

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\* A quite recent introduction is *bhut* or *bhot* for Engl. vote. As an example of the way in which names may be disguised, the name of the first settlement officer of the Santal Parganas may be mentioned. *Hut Saheb's* settlement is one of the time points of Santal chronology. *Hut* stands for Mr. Browne *Wood*.

† It is unnecessary to say that here and in the following "any" consonant or vowel refers only to sounds found in the Santali language.

§ Vowels are usually begun and finished as in English; when beginning the glottis is gradually narrowed, when finishing the glottis is still closed for voice.

word is used as an opprobrium ; *kurus* = cross ; *silat* or *selet* = slate ; *sili-pa* = Engl. (railway-) sleeper ; *phoroi* or *pharai* = Engl. fry.

(c) Transposition has been used so that the second consonant and the vowel change places. Cp. above *sub* (a), *Purbhu* ; *birti* or *birit* = *briti* (profession, craft) ; *Kermön* = Craven ; *silpas* = slippers.

(d) Omission of one or more of the initial consonants : *tiri* = *stri* (women, here following colloquial Bengali) ; *Kerap* = Srefsrud (perhaps a form found not entirely unaided) ; *daebqr* = driver (of a motor car).

(e) A vowel is prefixed.

*E. g.*, *iskul* = school ; *istin*, *istisin*, *istison*, *estesön*, all the words = station ; *estek* = steak ; *astabol* (*astabal*, *astabol*) = stable (this likely though from the Persian form of the word).

It will be seen that Santali follows somewhat the same rules as the vernaculars of Northeastern India, *e. g.*, Bengali or Hindi in their colloquial rural forms. As the parent language of these, Sanskrit, has just as complex consonant combinations as we in our European languages, we may possibly be right in drawing the conclusion, that these vernaculars have been influenced by non-Aryan languages, such as the Munda languages in former times. It does not belong here to trace the mutations of words borrowed in the same form from other Indian languages ; this belongs to the phonetics of the parent language. The reader may be referred to John Beames' Comparative Grammar, Hoernle's Grammar of the Gaudian languages, and more especially to R. Pischel, Grammatik der Prakrit Sprachen.

117. As to the *middle of words* the following may be noted :

(a) No vowel will in Santali commence a syllable in the middle of a word. An apparently medial vowel will in dis-



syllables be either the second vowel of a diphthong, consequently ending a syllable (see para 109), or, if not this, be separated from the preceding vowel by a spoken, but not always written euphonic semi vowel which commences the syllable (see above para 113). An only apparent exception is what occurs when a checked consonant (*k'*) is inserted in the middle of a word and a vowel follows this. From what has been written on the nature of the checked consonant (see para 103) it will be clear that the vowel following such a one is separated from the consonant, there being no connecting glide between this and the vowel; the vowel represents a fresh beginning and is not properly medial.

The case of *k'* and *t'* as last consonant of a verbal suffix and of any checked consonant in intransitively constructed verbs immediately preceding the finite *a* cannot be counted as properly belonging to the here mentioned class.

(b) Any single consonant or semi-vowel (or semi-consonant) may be found in the middle of a word, the only exception being the cacuminal *ɳ* (see para 77).

With regard to some restrictions in the use of certain medial consonants when the preceding syllable commences with certain consonants see paras 72, 74 and 112

(c) A medial single consonant is pronounced as belonging to the syllable immediately following it, the only exception being the checked consonants which from their nature must belong to the preceding syllable. This will be mentioned in another place further on.

118. In the middle of a word two consonants may be found following one another, or even three, if the first or second of them is a nasal. When there are two consonants, the first will phonetically have to be counted as belonging to the first syllable, and the second to the following syllable.

With three consonants in the middle, the first or second, as remarked, always being a nasal, the nasal may belong to either the first or the second syllable and forms a glideless combination with the consonant to which it is prefixed. The nasal belongs to the consonant immediately following it. When it is the second consonant of three, it may be said to serve for a vowel; it is syllabic or sonantic.

If in the middle of a foreign word three consonants are found, none of them being a nasal forming a glideless combination with a following stop, one of the three is left out in rendering the word in Santali, or the whole may be "rearranged" to suit Santali phonetic convenience. *E. g.*, waistcoat becomes *askaṭ*; cornflour I have heard rendered *kompolan* and *kan-phola*; inspector becomes *nis peṭer* and *inis peṭar*.

*E. g.*, *haṭ-ṛau*, *ed-re*, *hod-go*; *haṇḍi*, *maṇḍi*; *mahṇḍer*; *maṛ-ṇḍi*; *dharaṅga*; *khāṇḍ-ri*; *koṇj-re*; *koṇje*; *bermbak*; *jambro*, *mambla*, *thutmba* (besides *thutmba*), *kombro*, *telnga theṅga*.

With combinations of consonants formed in different parts of the mouth there may be no audible glide from one to the other; as a rule, however, the glide is more or less audible. This accounts for the practice of some, generally untaught, Santals who may be observed in writing to insert a vowel which is not heard in speaking.

Irregular forms like the following may be met with: *Marandi*\* (for *Maṛṇḍi*), *Mahale*\* (for *Mahle*), *mahander* (for *mahṇḍer*), *khāṇḍiri* (for *khāṇḍri*), *ghoṭona* (for *ghoṭna*), and so on; such a way of spelling is really an attempt to write an audible glide.

An aspirated consonant counts for one: *godh-ṛa*, *kirdhum*, *kuṛhni*, *gambhra*.

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\* These forms are found used also by officials of the educational department when having to write these names in English.

119. A Santali word may end with any vowel or diphthong, with any single consonant, except *y*, *ŋ*, *v* and *w*, and with two consonants, if the first is a nasal forming a glideless combination with the final consonant.

The semivowels will as end sound unite with the previous vowel to a diphthong (cf. what is stated about these).

As elsewhere remarked (see para 111) aspirated consonants are not final sounds in Santali words. They are often written as finals in borrowed words, but not generally spoken.

*E. g.*, *rə*; *bae*; *rər*; and *mand*, *mǝ́ńj*; *dhũnd*; *sǎnd*; *hĩng*; *buruńj*.

The final consonant combinations found are *ńg* (very seldom and likely only in borrowed words); *ńj*, *ńđ* and *ńd*. As seen, all are voiced stops.

120. Where foreign words ending in more than one consonant are adopted, one of the following ways is followed:—

(a) A vowel may be introduced dissolving the consonant combination.

*E. g.*, *phulus kep* = Engl. foolscap.

(b) One of the consonants is omitted, *e. g.*, *sqmən* = Engl. summons; *keswari* or *kəsqbər* = case work; *tíkis* = tickets; *kəťis* = entlets, in Santali both singulars; *kompā* or *kompān* = compound; *phəres* = Engl. forest; *nəs* or *n̄is* = Engl. nurse.

(c) A vowel is affixed at the end (generally the last vowel of the word, thus dissolving the consonant combination. This last way out of the difficulty is a very common one and has the advantage of fairly preserving the substance and the stress of the original word.

*E. g.*, *bĩńci* = bench, *poťə qphis* = Post office; *rińci* or *ińci* = inch; *arəńťə* = warrant; *marka* = mark; *baksa* or *baska* = box.

(d) If the foreign word has a nearly silent vowel in the last syllable, this is brought out of its silence to full stress, sometimes in its original place, sometimes transposed to the end.

*E. g.*, *botol* = bottle; *kitli* = kettle; *baisikol* = bicycle; *menḍil* (also *medil* or *miḍil*) *barna kulār* = middle vernacular.

(e) When the final consonant-combination consists of a nasal and a consonant other than those referred to para 119, and the combination is not treated in accordance with one of the rules just mentioned, the nasal may be attempted rendered simply by nasalization of the preceding vowel.

*E. g.*, *mĩs* = Engl. mince.

(f) In some very few cases the combination is attempted kept (undoubtedly under foreign influence).

*E. g.*, *Phrans* = France.

121. Besides the examples mentioned which follow obvious rule of phonetic convenience, many others might be brought forward in which no rules are traceable. The Santals do not wish to have foreign words, phōnetically felt as foreign; the words must be Santalized. If this is difficult, they do not hesitate to coin a new word which may have something to remind them of the original, although this something may not always be easily felt by others.

### Peculiarities of sung Santali.

122. Whilst in the ordinary spoken language a word may commence with any of the vowels, sung Santali\* shows a very curious disinclination to let a word begin with a

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\* It might be noted, that all Santal poetry is intended for singing only, they have not, except when they have got it from Europeans, or through European influence, poetry used for declamation in our sense or the word. Quotations from songs may, however, be heard.

vowel. When singing the Santals usually prefix to words in ordinary language commencing with a vowel one or the other of the three consonants *n*, *t* or *y*.

It may be difficult to find a satisfactory explanation why this is done.

The dental nasal (*n*) is the generally prefixed consonant.†

*T* is used exclusively to intonate the interrogative pronouns commencing with a vowel and the negation *oħo*, and *y* is heard prefixed to some of the demonstrative pronouns and a few other words.

Whilst the use of a prefixed *t* is regular and limited to the special classes of words mentioned, the application of *y* seems to be irregular and erratic, it sometimes being used and sometimes not in the same word. The use of a prefixed *y* is so much more strange, as it is against the custom of the ordinary spoken language to let *y* commence a word (*vide supra* para 67). It is just possible, that the *t* and the *y* may be otherwise lost remnants of the words in question (cf., e. g., Kurku, *tone*, which, *ye*, who).

The examples given below show that the *y* cannot be the euphonic *y*. The examples further show that the prefixing of these consonants, especially of the *n*, cannot be explained by a wish to have a consonant between two vowels. It is elsewhere described how with the open stress common in Santali consonants belonging to a previous syllable or even word are phonetically drawn to the immediately following. One might think that it might be natural in these circum-

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† It has nothing to do with this prefixing of an *n*; but it may be mentioned that especially Santal men may often be heard 'singing through the nose'.

It is not unknown that people making an effort to sing start in a similar way. The writer remembers from his childhood an old rustic deacon who in church invariably sang *na-men* for *amen*. The *n* when used as mentioned by the Santals gets a clear pronunciation.



stances to take a final consonant as belonging to the word following when it commences with a vowel. The consonants in question are used, not only in words immediately following an other ending with a vowel, but after words with a final consonant and at the commencement of a song where there is nothing preceding.

It may be that this horror of commencing a sung word with a vowel is getting out of vogue, as the Santals develop. The rules mentioned have not always been rigidly followed by all. In some songs, e. g., lamentations on the death of a near relative, the *n* is often not prefixed; the *t* of the interrogative pronouns seems, however, always to be used.

They may, or may not, apply these consonants when singing songs in a foreign language; they have a large number of songs in a kind of Hindi used at some of their festivals; here they let words freely commence with vowels, although a prefixed *n* may also be met with.

Missionaries and Santals when composing hymns have not, except in a very few instances, paid any heed to the peculiarity here mentioned. Sometimes persons, especially men, may be heard, when singing hymns, attempting to prefix *n*'s; this is, however, rare and individualistic.

The examples given here below will show, how the peculiarities work when applied. The consonants prefixed in singing are put in brackets.

*Dakaeań, (n)utuiań, condo buruń (n)emaea;*  
*(N)enre hõe mēna, nui (n)era dõ bāń dõhõyea.*

(A *dõn* song :

I cook rice, I prepare curry, I give him heaps;  
 Still he says, I will not keep this wife.)

(N)ae siñ (n)ae ñinda sēngel dage ho,  
(N)ae siñ (n)ae ñinda jaḍam jaḍam ho.  
(T)okareben tahēkan, manewa,  
(T)okareben sorolen ?

(A song from the Traditions

Seven days, seven nights fire rain,  
Seven days, seven nights pouring down.  
Where were you two human beings?  
Where did you two hide yourselves?)

(N)aben (n)asēnte, kuṛi, gēl sermañ rēngēc'ena,  
(N)aben saṅgarte, kuṛi, (n)isi sermañ tetañena,  
(N)ar dō kuṛikin, (t)uḥuñ (n)asēnleben.

(From a *Dasāe* song :

By taking you two round with me, girls, I suffered  
hunger for ten years,  
By walking round with you two, girls, I suffered  
thirst for twenty years :  
I shall certainly not, you two girls, take you two  
round with me any more.)

(Y)ō hae, (n)ingañ hō banugic', (y)ō hae, (n)apuñ hō banugic';  
(Y)ō hae, (n)am menamre, dada, (y)ō hae, ḍarre dō (n)ap'kañme.

(A *dōñ* song :

Alas, my mother is no more, alas, my father also is no more ;  
Alas, whilst thou art alive, my elder brother, alas, perch me  
on a branch (i. e., get me a husband) ).

Sikhār disom, Jaḍu, (n)alom (n)idiña,  
(Y)aora baṣ, Jaḍum raṇḍi giṛikañ.

(A *Sōhrae* song :

Do not, Jadu, take me away to the Sikhār country,  
Do not, Jadu, make me a thrown-away widow  
whilst I am yet in my prime).

(Y)ə hae, (y)ona (n)añjom (n)añjomte  
*Bursi señgel leka jiviñ lok' kan.*

(A bir song :

Alas, by hearing this (music)  
 It burns in my soul like a fire-pau.)

(Y)ə hae, ma (n)añjompe,  
 (Y)ə hae, (y)ore khon pheḍḍe khon.

(From an epic song :

Please listen (to the story)  
 From the first beginning.)

*Haere haere nindara dɔ*  
*Jāhā khonle hijuk'a,*  
*Enḡañ dɔ duarre durupkate*  
*Kisni hopon lekae cɛɾɛc' daramle.*

(Lamentation song :

Alas, alas, formerly  
 When we came from anywhere,  
 Our mother sitting in the door  
 Used to meet us like the young *maenas* with caresses.)

Here *enḡañ* is always used, not *neḡañ*.

*Haere haere chatar umultiñ dɔ,*  
*Chatar umul dɔ, gɔ, oṭañentiñ dɔ.*  
*(T)oka kōṇḍiñ dāṛālere*  
*Chatar umul reak' rup dɔñ ŋl namtaea ?*

(Lamentation song :

Alas, alas, my umbrella-shade,  
 My umbrella-shade, mother, is blown away.  
 In whatever direction I might go,  
 Will I catch sight of the form of the umbrella-shade?)

Here both *umul* and *numul* may be heard; so also both *oṭañ* and *noṭañ*, but it is always *toka*. "Umbrella-shade" fig. for husband or bread-winner.

123. As remarked in a footnote to the last para Santali poetry is intended for singing only. This to some extent accounts for certain peculiarities of their songs other than those mentioned in the previous section.

When the melody demands it, the subject pronoun may be left out. This is of frequent occurrence with the pronoun of the 3. p. sing., especially when this should ordinarily be added to a preceding word ending in *e* or *i*. The same, however, also occurs with other subject pronouns.

The omission of the finite *a* (see the second example in the previous para) and of other particles of speech need not be mentioned, as this kind is not restricted to sung Santali.

On the other hand one or more syllables may be added. When in this way whole words are added, it is not so much a grammatical peculiarity as a musical and "poetical" curiosity. Words wanted are (especially in the last line of a verse) without further ado added, and the melody is altered or rather amplified to suit the words, sometimes by several short notes doing duty for one or two long ones, sometimes by repetition of a note. To discuss these matters does not belong here; they are only just mentioned for the sake of completeness.

There is, however, one peculiarity which has some phonetic interest. Especially in old songs made use of in the recitation of their Traditions and in connection with their festival ceremonies, but also in songs of recent date, the Santals may be heard to insert a vowel to fill up a vacancy in the rhythm. The vowel used for this purpose is *e* or *ə*. In a few cases other vowels may apparently be made use of, but it is possible that what in these cases happens is merely to bring out an ordinarily

silent vowel or to use an obsolete suffix. When an *e* is used, this frequently has the stress.\*

Why an *e* is so commonly used (according to the neighbouring vowel the sound may vary from *e* to *ɛ*, but apparently does not go outside the *e*-sounds), it is difficult to say; possibly the *e*-sounds is felt more neutral than other vowels or less expressive of special meaning.†

In the Santali songs cited in the previous para the second song shows to examples, *dage* for *duk'* and *manewa* for *man-wa*. The seventh specimen has *ore* for *or* and *phede* for *phed*.

In a song of the Traditions they sing :

*Cete lagit' mapak' kana, gateñ ho*

*Cete lagit' gopoc' kana, gateñ ho,*

*Cete lagit' ñēpēt' gopoc' kan ?*

(For what are they cutting each other, my friend,

For what are they killing one another, my friend,

For what are they smiting and killing one another ?)

Here the subject pronoun (*-ko*) is left out in every sentence, the finite *a* is left out in the last line, and *cete* is used instead of *cet'*.§

\* Very many of the songs used in connection with festival ceremonies are connected with dances, the melodies furnishing part of the music wanted for these. This might furnish a reason for the insertion of a vowel; but as the Santals are rather in the habit of using slurs when singing, one might think that they should have no difficulty in employing such to make up for wanting syllables. Any one interested in the musical and ethnological side of these matters might be referred to Dr Wallaschek's *Primitive Music*, particularly Chap VI

† The Santals have a sound similar to what many Europeans use in hesitating or diffident language, with this difference that in Santali the sound produced (*eh*) is a recognized part of the language and used specially in enumeration. It is here a kind of interjection. *E. g.*, *horo, eh, jondra, eh, gundli*, etc.

§ A form which should not perhaps be used in support of the voiceless character of the checked consonants in Santali. There is a side-form (*cet*) of *cet'* found in a word like *ceta* (*ñ, m, t*). Cf. *tarube* in the next following example.



A few more examples will show how it works.

*Siñegor birere kule, go, menae,*

*Manegor birere tarube kopon.*

(From a *Sohrae* song :

In the Singbhum forest, mother, is the tiger,

In the Manbhum forest is the young leopard.)

Here we have in the three first words of each line introduced an *e*. *Siñegor* and *Manegor* for *Siñgor* and *Mangor*. (likely old names for what is now called as translated, although the Santal names may stand for something much smaller than the modern districts), *kule* for *kul*, *bire* for *bir* and *tarube* for *tarup*'. In another song I have heard *ḍuṅguri* for *ḍuṅgri*.

In a song of the more recent Traditions they sing :

(*N*)*ajiñ* (*n*)*amar gosāe ho,*

*Teñoalañ sutam gaṇari;*

(*N*)*ajiñ* (*n*)*amar gosāe ho,*

*Galañoalañ raṅki janalom.*

(O my elder sister, my goddess,

We two shall weave a fishing net of thread;

O my elder sister, my goddess,

We two shall knit a huge dip-net.)

The language is a curious mixture. In this verse *ajiñ* is Santali and *amar* Bengali. In the two verbs an *o* is introduced (*teñ-o-alañ*, *galañ-o-alañ*). This *o* (also written *w*) is very commonly used, especially by women, before the verbal suffixes of the indirect object (dative) construction commencing with *a*, and also before the determinative suffix *ak*'. In such cases the sound is likely the remnant of an old suffix. Here

it is otherwise. If the construction is as translated, it must be an expletive.\*

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### Syllables.

124. As remarked above (para 117 c) the pronunciation in Santali does not divide according to etymology, but according to what might be called phonetic convenience, in this following the custom of other languages.

To explain the position in Santali the following may be noted :-

Although syllables belong to the first rudiments of instruction, it has apparently not been possible to define to the satisfaction of everybody what a syllable is. It may serve our present purpose to say that a syllable is a vowel, or what does service for a vowel, and the sounds which flank or are attached to the vowel. The vowel has the highest sonority

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\* Most Santals understand the verse cited as translated, one reason for this being that the verses preceding and following of the same song undoubtedly have the Future tense of the verb. Some have, however, probably on account of the common use of the *o* described above, understood the verb as a kind of Imperative (weave for us two, etc.) or Passive, the Active form having the meaning of Passive.

It is said to be common with many uncivilized peoples to have and to use songs of which they do not themselves understand the meaning. Partly this may be due to some *licentia poetica* which is just as common apparently among uncivilized as among more developed races. Partly it may be lack of ability to express oneself with later attempts at amendments and improvements, until the whole becomes a stereotyped rigmarole. The Santals have a number of songs the meaning of which is only partly grasped by the common people and sometimes not quite understood even by the 'learned' ones of the present day. The songs have originally very likely had a meaning. They are in an archaic and sometimes in a foreign language which latter fact does not help as regards preservation or intelligibility. These songs do not belong to the ordinary life of the people, but are 'taken out' at special festival occasions, because custom says they belong there.

of the syllable group of sounds and sustains these other sounds; a syllable cannot have more than one vowel or vowel-equivalent, but must have one such.

What concerns us here, is the division of syllables. There is, of course, no difficulty with the commencement or the ending of respectively an initial or a final syllable. But there is in the spoken language a real difficulty, and it is often practically impossible, to decide where one syllable ends and another commences, in other words, where the divide is between syllables following each other in the middle of words or in other syllable combinations which may be counted as units. For practical purposes it is, however, desirable to know roughly where a syllable following an other commences, in other words, to know where a medial consonant phonetically belongs, or where the bulk of it belongs.

The division to a large extent depends on what Mr. Sweet calls *close* and *open stress*, and others call something else, for instance Prof. Jespersen *fast* and *løs Tilslutning*, i. e., on whether a consonant following a vowel comes whilst the force-impulse of the vowel is still fully operating, or first when the force-impulse has diminished, so a fresh force-impulse commences with the consonant. In the first case we have close stress, in the latter it is open. In the first case the consonant is joined to the preceding vowel, and belongs to the first syllable; in the latter case it belongs to the following syllable.

In Santal we meet close stress in final syllables with short vowel. The same is the case with all syllables ending with a checked consonant. It also applies to the first syllable of words with a medial combination of two consonants other than a consonant preceded by a nasal.

Words and units with a single medial consonant generally have open stress between the first vowel and the consonant

following which phonetically forms part of the second syllable, whether it etymologically belongs there are not.

Previously close stress may become open, when during the agglutinating process a suffix or infix or other (auxiliary) particle of speech commencing with or simply consisting of a vowel is added to a word ending with a consonant.

The language has a predilection for open syllables.

*E. g.*, *mən* (mind), but *mə-ne* (mind); *mor-na* (death), but *mə-rən* (death); *rər* (speak), but *rə-rae* (he will speak), *rə-re-dae* (he speaks, besides *rə-ret'-ae*), *rə-ret'-ka-na-ko* (they are speaking now); *o-rak'* (house, not *or-ak'*); *tol* (bind), but *tə-lak'* (what is bound); *nel* (see), *ne-lae* (he will see), *ne-ne-lič'* (one who sees).

I should be noted that, except in formations such as those mentioned, a preceding consonant is not taken from its connection to a following vowel. It is, *e. g.*, *amem qla* (you will write), not *ame mqla*, *cetan ato* (the upper village), not *ceta nato*.

125. The nasal (especially the velar and palatal *n̄* and *ñ*) seem to be something by themselves.

The palatal nasal is found as a single medial consonant, although not in very many words. The velar nasal is not, I think, so found. But both of them are very common as final consonants and become medial when suffixes or other particles of speech are added. Open stress, is undoubtedly met with, but apparently not so open as with most other medial single consonants. With stress on the preceding vowel the nasal seems to belong in part to this, partly to the following syllable. These nasals (*n̄* and *ñ*) are always long. They have a distinct on-glide. It is probably the stress which brings about the result mentioned, assisted by the quantity and the nasal (open) character of the consonants.

The two other nasal consonants *m* and *n* are less different from other single medial consonants.

*E g.* *a-ñũ* (give to drink), *teñat* (his brother-in-law) *daleñae* (he will strike me); *baña* (it is not), *bañ atíña* (I am unwilling); *marañae* (he will make great).

Where the hyphen is put, there is no doubt; in the other examples the division is not so certain. A Santali will in writing treat all as having open stress.

126. In connection with syllable division another peculiarity of the language is to be pointed out. As elsewhere already mentioned, Santali will not suffer *hiatus* in certain circumstances. Two vowels following each other in an unbroken progress of syllables will therefore, provided the two vowels are not contracted into one, or do not form a diphthong, get a euphonic semi-vowel introduced between them to mediate the transition from one vowel to the other.

127. The euphonic semivowels of the Santali language have been described and their use examined previously (see paras 67, 97-99 and 113). There is only one point which should be mentioned here. Having much of the character of glides, they seem to belong in part to the preceding vowel (with which the first portion of them enters into a kind of diphthongish compact) and in part to the following vowel, that is, syllable. It is difficult to decide, where the second syllable commences; it must be somewhere in the middle of the semivowel, where the consonantic impulse is heard. These sounds stand in a class by themselves.

It should be noted, that the euphonic semivowels are not used between two independent words following each other with respectively final and initial vowels.

*E. g.*, *agu-w-aka-w-ade-y-ae* (he has brought to him; the *w* between *agu* and *aka* is not always used); *idi oŋo-w-ade-*



*y-ae* (he took it to him; not *idi-y-ofo*); *tala-w-ak* (the half part); *harta-w-ate* (with the skin); *adɔ ɔndɛ ona ɔrak're-y-e aŋga y-en-a* (so he remained until morning there in that house); *rara-y-e-me* (loosen him).

See also the examples given in the paras referred to above.

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128. It seems as if Santali will not have more than one consonant to begin or close a syllable, the only exception being the glideless combinations of a consonant and a preceding corresponding nasal to close a syllable.

129. *Assimilation of consonants* so common in many languages is rare in Santali, undoubtedly due to the agglutinating nature of the language which does not offer so many opportunities for the welding together of syllables, or else allow such. Elimination is rather more resorted to (for some examples see above paras 116-120). It is not possible to decide in the present state of our knowledge, whether assimilation or elimination has made itself felt in the formation of the words of the present language (apart from words adopted from other languages, the history of which can be traced; in such cases the borrowed words may, in addition to their vicissitudes in their own language, have experienced both assimilation and contruction and especially elimination at the time of and as a condition for adoption into Santali).

A few instances are met with of anticipating assimilation, always in connection with a nasal coming before another consonant. The assimilation has generally become fixed (such cases are referred to above para 120). In a very few cases the assimilation is facultative and the language shows two parallel forms.

*E. g., kankha and kankha* (edge, rim).

To pronounce *onko*, *enka*, etc., in stead of *onko*, *enka*, and so on, is not proper Santali. I am afraid, it is a very common mispronunciation with foreigners, now also with educated Santals.

Progressive assimilation is not, I think, met with in the present language. It might be especially noted that such does not take place even when a dental follows a cacuminal; it is thus, *e. g., luṭni* (a kind of mustard seed), and not *luṭni*; the *n* is a pure dental.

130. *Assimilation of vowels* has been dealt with in the section on Harmonic Sequence (paras 19 ss. ).

131. *Contraction of vowels* (always two of the same kind, not different ones), whereby two syllables may be said to be made into one, is met with in the following instances:

(a) All verbs ending in a single vowel have in the Indeterminate (Future) and Imperative of the active voice of the transitive verb with inanimate direct object an *e* or an *i* suffixed (*i. e., i* with verbs ending in *a* and *u*, otherwise *e*). In verbs ending in *e* or *i* the *e* or *i* of the suffix is contracted with the final vowel of the verbal base.

(b) In the two verbs *ema* and *meta* (sideforms of *em* and *men*) the *a* of the verbal suffixes of the indirect object is contracted with the final *a* of the verbal base. The suffix of the Perfect is naturally an exception, the suffix itself being a compound of a base *aka* and a suffix. *E. g., emakom* (for *ema-w-akom*), *metak'me* (namely), *metaeme* (tell him); see also below, para 140 footnote.

In the instances mentioned there is an appreciable lengthening of the contracted vowel, in the two last mentioned cases to such a degree as to place the stress on the vowel in question which is otherwise without analogy in the language.

132. *Elimination of vowels*, also resulting in two syllables becoming one, is met with in the cases mentioned below :

(a) The vowel of the Medium (Passive) suffix *ok'* is eliminated when the verbal base ends in a vowel or a diphthong other than *ae* or *ai*.

*E. g.*, *rarak'* (from *rara*, to loosen), *idik'* (from *idi*, to take away), *erek'* (from *ere*, to deceive), *bolok'* (from *bolo*, to enter), *qulauk'* (from *qulau*, to put into disorder), *santao<sup>k</sup>* (from *santao*, to inflict pain, distress).

A few exceptions to this rule are mentioned para 113, page 92.

(b) The verbal suffixes *kol'* or *kok'*, found in the Optative and the Intentional are the result of a combination of the Optative *ke* and the Intentional *ka* with the medial *ok'*. Whilst elsewhere the *o* (*ə*) of the *ok'* (*ok'*) is eliminated, this is here kept and the vowel of the first part of the suffix is eliminated.

Whether an elimination has taken place in the two verbal suffixes *kan* (used in the Imperfect and the Intentional Simple Past Medium tenses, and to be distinguished from the verb substantive *kan*) and *ken*, that is, whether *kan* or *ken* are a contraction of *ka* + *an* or *en*, and *ke* + *an* or *en*, or whether they are simply *ka* or *ke* + *n*, is a question which I have not been able to make up my mind about. I am, however, inclined to think, there is a contraction with elimination of one vowel. One reason for thinking thus is, that the verb substantive (*kan*) undoubtedly is *ka* + *n*; cf. also (c).

(c) The vowel of the verbal suffixes *le* and *ke* is eliminated before a pronominal infix commencing with or simply consisting of a vowel, that is, before the object infixes of the 1st and 3rd pers. sing. (*iñ* and *e*). In the case of *e* it might possibly be explained as contraction. It is, however, better counted as elimination, on account of the analogy

with the other mentioned instance, and also because there is no appreciable lengthening of the vowel, which might otherwise have been expected.

The infixes of the indirect object are, when added to these two suffixes, not different from the infixes of the direct object. We have no means of ascertaining whether any further elimination (in this case, of an *a*) has taken place or not.

*E. g.*, *iñem ñel-l-iñ-khan* (if you see me), *em-l-iñ-me* (give it to me, before doing anything else), *takam em-k-iñ-a* (might you be willing to give me some money), *ac'-em ñel-l-e-khan* (if you see himself), *merqmem kirin'-k-e-a* (would you care to buy the goat), *em-ke-ko-a-m* (would you give it to them, or, would you give them).

(d) The vowel of the personal pronoun (suffixed form) of the 1st and 2nd pers. sing.\* (*iñ* and *em*) is eliminated when the pronoun is used as verbal subject, attached to a word ending in a vowel, or to the finite *a* of the verb.

*E. g.*, *ba-ñ*, *ba-m* (not I, not thou), *hola-ñ hec'-ena* (I came yesterday), *tol-ke'-a-m* (you tied).

(e) The same happens when *iñ* is used as direct object infix with verbal bases ending in a single vowel, and with the verbal suffixes *ka* and *aka*.

*E. g.*, *idi-ñ-me* (take me away), *ārgo-ñ-me* (take me down), *raṣa-ñ-me* (loosen me), *idi oḷo-ka-ñ-a-e* (he will take me along and leave me), *sap' aka-ñ taheṇ-me* (continue holding me). The previously mentioned forms *menañ* and *henañ* (see para 108, C.) partly belong here.

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\* This is the regular course. As happens with the subject pronoun *e* (see para 113, p. 91) *em* and *iñ* may also be added to a word ending in a vowel by inserting an euphonic *y* as *aloyem* for *alom*, *kanayem* for *kanam*, and *kanayin* for *kanañ*, although the last is very rare. These forms are heard more with women than with men.

(e) The vowel of the personal pronoun of the 2nd pers. sing. in its infixed form (*me*) is often eliminated when it is immediately preceded by a word ending in a single vowel. This form is used as a possessive pronominal suffix added to a number of words, as direct object infix, and as subject pronoun in the Imperative singularis.

The *e* is with base words generally retained, when the immediately preceding vowel is long, and eliminated, when the preceding vowel is short and has stress. The long vowel favours open stress (see above para 124), and we have *me*; the short vowel prefers close stress with only *m*.

With an immediately preceding consonant or diphthong the full form is always used.

It is, e. g., *apum* (thy father) *bokum* (thy younger brother), but *gorom-me* (thy namesake), *jāwāe-me* (thy husband).

With a few nouns ending in a single vowel there are a few words, thus *eŋga*, which, in certain circumstances, does not eliminate the *e*. When the word is used in ordinary language, it is always *eŋgam* (thy, your mother); used as a kind of swearing it is *eŋga-me*. *Moca-me*, besides *mocam*, your mouth; further *ceta-me* and *cetam*, your what, why. The use of *me* with stress on the lengthened immediately preceding vowel seems to be restricted to abusive language.

As direct object infix it is *me*, when preceded by a consonant, but only *m*, when immediately preceded by a single vowel which has stress or gets stress through the infix. If the infix is to have stress, there is no elimination. The *e* is eliminated practically only after the verbal suffixes *ka*, *le* and *ke*, where the vowels are short. It is thus *dohō-me-a-e* (he will keep you), *bujhau-me-a-e* (he will understand you), *dal-me-a-ko* (they will beat you), but *dohō-ka-m-a-e* (he will keep you for good), *ñel-le-m-khan-e* (if he sees you), *idi-ke-m-a-ko* (they would like to take you along).



With the Imperative it is also practically only when preceded by *ku*, or *le*, or by the animate object infixes *e* or *ko*, that the *e* is eliminated; but also when following these, except *ka*, elimination seems to be optional, both the full and the shortened form being used. It depends on the stress and the length of the vowel, that may be pronounced long or short. With stress and long vowel we have the full form *me*, with short vowel, even when it has the stress only *m*. It is, e. g., *dqhqe-me* (put down), *hijuk'-me* (come), but *dqhq-y-e-me* or *dqhq-y-em* (put him down, or keep him), *lai-ako-m* or *lai-ako-me* (tell them), *gidi-ka-m* (throw it away), not, however, *gidi-ka-me*, in stead of which the form *-kak'me* is used, (the *-k'* being an inanimate infix which is found in this form), *rqṛ-le-m* or (seldom) *rqṛ-le-me* (speak you first).

(f) There is, so far as the writer can remember, only one instance of elimination of an initial vowel. It is heard in connection with the above mentioned word *eṅga*, when used equivalent to a kind of swearing. The *e* may be left out, the nasal *ṅ* doing service for a vowel, and the forms *'ṅga'te* and *'ṅga'me* may be heard.

133. (a) The verbal suffix *aka*, when constructed with direct object of the 3rd pers. sing. shows the same form whether the object is animate or inanimate. In the first case the object infix is probably not eliminated, but combined with the preceding vowel into a diphthong. This is without analogy in the language, except when this same infix is added to the Intentional suffix *ka*\* and with the animate indirect object infix for 3. p. sing. in the Indeterminate (Future), where we have *ae* and never *a-y-e*.

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\* It should be noted that whilst *ka* is a suffix proper, *aka* does service for a suffix, but is something more, and is in this form, when the object is inanimate, treated as a verb ending in a single vowel.

Whilst the subject pronoun of the 3rd pers. sing. regularly combines with a preceding vowel into a diphthong, this does not happen with the same pronoun used as an object infix. Except in the cases mentioned, this is always attached to a preceding vowel with the help of the euphonic semivowel *y*.

*E. g.*, *catqm sap' akæ tahenme* (continue holding the umbrella), *seta sap' akæ tahenme* (continue holding the dog), *sap' kæ me* (hold him in the meantime), but *catqm sap'kam* or *-kak'me* (hold the umbrella so long).

(b) Somewhat, but not fully analogous, is what happens when the interrogative pronouns *qkqe* and *cele* should ordinarily be followed by the subject pronoun of the 3rd pers. sing. (*e*). This *e* is sometimes, but not always, eliminated. In one very common expression it is always eliminated by *all*; in other cases the *e* may, or may not, be used. It is thus always *qkqe baðæ* (who knows, as a general question), but with stress on *who* it is *qkqeye baðæa* (who is the one who knows), further *qkqe hec'ena* (who came), besides *qkqeye hec'ena*; *cele qsullina*, *cele jətonlina* (who will support us two, who will take care of us two, said by old childless people, for *cele-ye* or *cele-ko*, never heard in this expression).

Fondling mothers may also be heard omitting the subject pron., when using "baby-language", as *e. g.*, *cek* (for *cet'*) *ñam kana*, *baba dhən*, what do want, darling.

134. *Gemination* or doubling of consonants is not met with inside single words. During the agglutinating process it is, however, of very frequent occurrence, that a suffix or an infix or other particle of speech is added commencing with the same consonant as that with which the last syllable of the preceding word ends. In such cases we get double consonants, not long consonants only, but double

ones in this way, that a new force-impulse begins in the middle of the held consonant. The organs of speech are kept in the same position and not altered; but whilst this is so, there is a distinct break of continuity or a diminishing of sonority with a fresh start.

*E. g.*, *jəm-me* (eat thou), *um-y-e emam-ma* (may he give you), *ac'-e sən-len-nāhĩ* (only provided he himself goes; cf. *nel-le nāhĩ*, where pronunciation is different), *qhəñ-nel-le-a* (I shall not see), *atqk-kedae* (he hindered), *odok-kom* (send them out).

135. When a checked consonant is immediately followed by the same full consonant, the gemination, if it should also in such cases be styled so, is of a somewhat different nature. The check is fully retained. The stop is not, however, released, until the succeeding full consonant is articulated. It seems, as if the consonant following the checked one is without its on-glide. Incidentally it may be pointed out, that these combinations show that the checked consonants are something more than a consonant without its off-glide.\*

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\* No special mention has been made, because not deemed necessary, of glideless combinations of consonants. Santali has these like other languages. It might be noted here, that during the agglutinating process it is of frequent occurrence that stops of the same class, the one voiced and the other voiceless, come the one after the other. In such cases the stop is retained unmoved, but is altered in character with the commencement of the new syllable. When the combination is the result of a verbal suffix being added, the voiced stop will be the first, the voiceless following; the reverse is, however, also met with, mostly in rapid speech, when secondary words follow a principal base.

Where an *l* follows an *n*, the stop is kept with the tongue tip, whilst the back portion of the tongue affected is brought into position for articulating the *l*.

*E. g.*, *ub-pe* (throw you out and down), *dag-kedae* (he made a mark), *reç-joñ-ae* (he will forcibly take for himself), *dag-kin* (the two marks), *hũk got'-enañ* (I got a sudden pain in my back), *bat dara-w-anae* (he brought rheumatism back with him); *sən-lenae* (he went and is back again).

The glideless combinations of a nasal with a consonant of the same

*E. g.*, *durup-pe* (sit you down), *ac' cōñ* (why, he himself), *rak' kate* (crying, cf. *rak'-ate* which means nearly the same), *sok'-ket'-ae* (he thrust his hand in), *ñel bara ket'-tae-a-le* (we looked into his matter), *bako añjōmlet'-taea* (they did not listen to him).

136. A kind of what is called *haplology* is met with in the Imperative of verbs when the verb has a pronominal genitive-infix of the same person as the subject-pronoun. The genitive-infix is kept, the subject-pronoun is eliminated.

*E. g.*, *lai-tam* (tell what you have to say), not *lai-tam-me*, as it should regularly be; *idi-ta-ben*, *idi-tape* (take yours away), not *idi-taben-ben* or *idi-tape-pe*, forms which in spite of grammatical correctness a Santal declares irregular. Even if the Imperative refers to one individual only, they will not say, *e. g.*, *idi-tape-me*, but *apeak' idi-me* or something similar.

137. The language in some cases permits a nasal to be inserted before another consonant. In other cases a nasal is substituted by nasalization of the preceding vowel. In certain suffixes the final checked guttural (*k'*) changes with the nasal guttural (*ñ*), and a final *n* with *c'*. In a couple of words final *t'* changes with *l*.

The inserted nasal seems to be explained as a phonetical excrescence. The other examples may have an etymological explanation.

*E. g.*, *indi* and *idi* (take away); *nidra* and *nindra* (drowsiness, sleep); *oñḍoñ* and *oḍoñ*, besides *oḍok* (take out);

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class are common and need not be mentioned. These all occur as medial or final in words. When a word ends in a nasal and is followed by a postposition or even another word commencing with a corresponding consonant (apart from gemination) the stop may not be released, until the following consonant is articulated. *E. g.*, *un dhabic* (until then), *mōnte* (with the heart), *am baba* (your father), *in ñelen* (to see me).

*mǝñj* and *mǝj* (beautiful); *menḍil* and *medil* (Engl. middle); *hāhaṅkar* and *hāhākar* (wilderness), *mañjha mǝñjhi* and *mǝjha mǝjhi*; *reak'* and *reaṅ*; *khon* and *khoc'*, *ṭhen* and *ṭhec'*, *sen* and *sec'*; *hot'* and *hol*, *got'* and *gol*.

In the cases referred to the language always shows parallel forms. The discussion of these matters properly belongs to the formation of words. Here the facts of occurrence only are mentioned.

### Quantity.

138. Santali has like other languages different degrees of quantity or length, both of the vowels and of the consonants.

The vowels may vary from very long to very short. Except the very short vowels which have a fairly constant quantity, the actual length of the vowels varies very much with the individual and with the temporary mentality of the speaker. It should be borne in mind, that we have to do with a spoken language, unfettered by written literature.

Emphasis is shown, not only by augmenting the stress, but especially also by lengthening the vowel. In the spoken language vowels may be lengthened from short to long and even very long ones. It is in this way that they frequently give vent to strong feeling, or lay stress on any point. Emphatic stress somewhat like that used in our languages may be heard on a syllable with a final checked consonant. The relative stress on the syllables of words is generally, but not always kept.

In the examples given below very short vowels are printed in elevated smaller character. Short vowels are not marked, half-long, long and very long vowels are marked with respectively one (˘), two (˙˙) or three (˙˙˙) inverted stops put after the vowel. Short consonants are not marked, long ones



are shown by an inverted stop (·) immediately following the consonant.

139. (a) The very short vowels are heard in the Performative form of dissyllabic verbs, after an infixed *k'*,\* in some of the cases as a slight echo of the preceding vowel, often so slight as to be scarcely perceptible. To prevent misunderstanding see footnotes to para 105. What is here written refers to the cases when the echo is actually heard.

These very short vowels are not met with as original component parts of words.

(b) In the verbal Performative, formed of words with a single medial consonant by reduplication of an initial consonant and its following vowel, the second vowel may be nearly equally short. It is, however, never quite lost.

*E. g.*, *ak'agu* (bring), *tik'irpit* (make satisfied), *ek'cae* (by sevens), *bebenao* (make, prepare).†

(c) In words used in addressing people it sometimes happens that the first vowel is so much shortened as to be not much longer than the vowel just mentioned. The second vowel may be correspondingly lengthened. The words with which this happens are always dissyllabics with final vowel, and mostly, although not always, words formed by a reduplication of a single syllable. When used in ordinary language and not in addressing (as a kind of vocative), the two vowels of the word are generally of very nearly equal length.

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\*When the first vowel of the base word is a diphthong, an inserted *k'* is not followed by this kind of short vowel. In this case the *k'* is preceded by the first vowel of the diphthong and followed by the whole diphthong. In monosyllables the inserted - *k'* is preceded by a short vowel, the full vowel following immediately after the - *k'*.

† In ordinary writing this elevated vowel is not used. After an inserted *k'* no short vowel of the kind mentioned is generally written. The other very short vowel is either (incorrectly) omitted or (so generally) written in ordinary character.

*E. g.*, *ə kakaʰ*, *ə gəgəʰ*, *ə babuʰ*. The difference between this short vowel and the one mentioned above it is unnecessary to point out.

140. Short vowels are very frequent initial and medial. As finals they are seldom heard.

Vowels immediately preceding a checked consonant are generally short, but by no means always or necessarily so. As remarked above, much depends on the speaker. The checked dental (*tʰ*) and still more the checked labial (*pʰ*) are not infrequently preceded by a long vowel. Such a long vowel is mostly found in monosyllabic words.

Monosyllabic suffixes with final consonant have short vowel.\*

*E. g.*, *gəcʰ-en-aʰe* (he died), but *gəcʰ-en-ae*, is common, when one wants to express sympathy or regret; *matʰ* and *maʰtʰ* (bamboo); *uʰp* and *uʰpʰ* (hair); *haʰam* (old man), *ha-ʰramenaʰe* (he has become old), but also (with some feeling) *haʰaʰmenaʰe*.

141. Half-long and long vowels are very common.

Final vowels of base words are generally long.

The vowel of monosyllabic base-words (in contradistinction to the vowel of auxiliary monosyllables, such as suffixes) is generally long.

The vowels of dissyllabic words may be both long or both short, or one may be long and one short.

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\* The only apparent exception that the writer can call to mind is the suffix *atʰ* with the two verbs *mən* and *əm* (*metatʰ* and *ematʰ*, especially observable when having the personal pronoun infix of the 1st or 3rd pers. sing., as in *metaʰ deae* or *emaʰ diñae*). This long *a* with stress is, however, easily accounted for, being due to the contraction of two *a*'s. The forms of the verbs used here are not *mən* and *əm*, but *meta* and *ema*. Side-forms as *metaʰ-wadeʰae* and *emaʰw-adiʰñae*, etc. are not uncommonly met with.

Diphthongs may be two short vowels, or one long and one short, or even two long ones (*vide supra* paras 12ss.).

*E. g.*, *ńęł* (see), *ęr* (saw), *i̇r* (reap), *lę* (melt), *ręr* (speak), *ręrq̣ṛi̇c̣* (speaker), *bęł* (enter), *bolq̣* (enter), *bolq̣ḳ* (do.), *ję* (fruit), *jęję* (acid, sour), *dhęrq̣ṃ* (religion, righteous), *hukuṃ* (order), *phaṇdạ* (kick); *dạrẹ* (tree), *dạrẹ* (strength), *dạ̄ṛę̣* (sacrificial animal); *i̇q̣* (so and so), *rụq̣* and *rụq̣* (sickness), *bạẹ* (hide), *bujḥq̣ụ* (understand), *pḥq̣ri̇q̣* (clear, recover), *j̣iụ* (spirit), *hę̣ẹ* (wind).

Very long vowels are heard, when a speaker wants to emphasize anything, or when strong feeling is given vent to; they are the ordinary long or even half-long vowels lengthened and need not be further mentioned.

The length of time used in pronouncing the vowels will naturally vary with the individual and with the mood of the speaker.

142. Whilst the greater part of the language is made up of monosyllabic and dissyllabic words and particles, polysyllabic words are also met with. These, as regards quantity, show the same qualities as dissyllabics. All vowels may be short, or some short and others half-long or long. There is, however, with polysyllabics a tendency in pronunciation to divide them into groups of separate stress-units of one or two syllables each. A good many words written as one word are really two and might be written as such.

*E. g.*, *birṣq̣hạ* (kind of diarrhoea), *pati̇q̣ṛ* (faithful), *panahi̇* (shoe), *dạq̣uni̇* (twig for cleaning the teeth), *erạq̣ṃ* (the Ricinus tree), *munucạṭ* (end).

143. Like the vowels the consonants also vary in quantity. They may be long or short, with individual variations.

As initials all stops are short, and generally also the other consonants when used as initials. When medial or final they may be either long or short. Single medial consonants are mostly short, like the initials.

The nasals are generally long as finals; as initials or as medials they are long or short, the velar and palatal nasals being generally long.

The sibilant is frequently long.

As length of vowels and consonants depends on the length of time a certain mouth-position is kept, it is natural that all checked consonants should be long; they have not, however, been marked as such. Some time is required to do away with the off-glide, and so long the stop-position has to be kept. This length is of a somewhat different character to that of other consonants.

Both long and short consonants may follow long or short vowels.

In medial consonant combinations of stops both may be short, or one long and the other short.

*E. g.*, *ńę·l·* (see), *le·ń·* (creep), *ńęle·a·e* (he will see him), *qhq·m· ńę·l·lele·a·* (you will in no wise see us), *qñ·qē·* (there), *hō·r·* (man), *horo* (paddy), *si·* (plough), *is·* (interj. of unpleasantness), *loth·r·o·* (fat), *us·ku·r·* (stir up), *u·r·* (flay), *la·p·* *lapa·* (stretched out horizontally), *a·h·* (interjection of joy), *aha·* (alas), *da·g·* (mark), *dag dag* (luxuriant), *dā·k·* (heat), *daka·* (boiled rice).

144. It has already been mentioned, that quantity of vowels may be altered in accordance with the temporary mood of the speaker. Certain kinds of intense feeling (such as grief, compassion, amazement, etc.) will find expression in more or less lengthening of the vowel which has the stress, whilst other kinds (such as impatience or anger)

may show itself in the shortening of a vowel. This kind of alteration does not disturb the relative quantity of vowels inside a word. The comparatively shorter vowel will not become comparatively longer than the ordinarily longer vowel of a word. It is the ordinarily longer vowel which is lengthened; the ordinarily shorter vowel may be and in such circumstances often is correspondingly shortened. Alteration of this kind may be a help to show where the predominating quantity (and stress) really is in doubtful cases.

Whilst the ordinary pronunciation is, e. g., *bqtq'rena'e* (he was frightened), the second *q* being very slightly longer than the first, sometimes *bqtq'rena'e* or even *bqtq''rena'e* may be heard.\*

Some further examples are found para 158.

Shortening of vowels of the kind mentioned needs no examples; it is of the same nature as what we know from our own languages when the same kind of mental attitude gives itself vent. It is especially observed in connection with monosyllabic interjections and demonstrative particles.

145. Besides as just pointed out, quantity may in Santali also be otherwise changed, short vowels and consonants being lengthened and long ones shortened.

(a) The lengthening of consonants is less observable, in spite of being of not uncommon occurrence. So far as the writer has been able to hear, only final consonants are lengthened, and only when the final syllable has stress. In

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\*As an example of how imperceptible the relative difference in quantity and stress between the vowels inside a word often is, and of how difficult it is to ascertain the true facts, it might be mentioned, that Dr. Heuman in his *Grammatisk studie öfver Santalspraket* in the word mentioned puts the stress on the penultimate. I have no doubt, that it is on ultima, but I acknowledge that I should not feel certain, if I had not often heard the lengthening here discussed.



interjections such as *ah*, *eh*, *ih*, *uh* and *is* the *h* and the *s* may often be heard pronounced very long. In these last mentioned words lengthening is perhaps of the same nature as the lengthening of vowels mentioned in the foregoing para.

Lengthening of vowels may be observed, when comparatively stressless suffixes are added and some more quantity may be required to sustain the stress of the base word. The augmentation mentioned is especially observable in words ending in a vowel, when taking monosyllabic suffixes. In such cases a final consonant may also be lengthened.

*E. g.*, *bəlɔ* (enter), *bəlɔːyənəː* (he entered); *lɔtəm* (cover up), *lɔtəmənəː*; on the other hand *lɔtəm kətəkəː* and *lɔtəm kədəː*, where the ordinary quantity is kept.

It is the law of stress-units which operates. Otherwise stress-less words may sometimes take the stress and get their vowel lengthened. It is thus *hɔːr kənəː* (he is a man, or a Santal), but *hɔːr kənˈgeəː* (assertively, he is a man, or a Santal, and nothing else).

(b) Long vowels and consonants are in certain circumstances changed into corresponding short ones.

Words, especially monosyllables, with long final vowel may change this into short, when *n*, *ñ* or *k* is suffixed. *E. g.*, *baː* (not), *baːko* (not they), but *ban*, *bəñ* (not I) and *bəñ*; *cəː*, but *cən*, *lɔː*, but *lɔk* (burn); *dəhəː* (put down), but *dəhək*, *dəhəñme* (put me down).

When a suffix or an infix is added melting into one stress-unit with the base word, the quantity of the final vowel and consonant of the base word is reduced. The stress is in such cases on the suffix or infix. *E. g.*, *ñɛːl* (see), *ñɛlɔk*, *ñɛlɛːkənəñ*.

146. On the other hand when separate stress-units are brought in, little change in quantity takes place. An added

suffix or infix will thus not much affect the vowels of the preceding base word, neither will the verbal suffixes, except as stated above, viz., when they melt into one stress-unit with the base word.

*E. g.*, *ɛːr* (sow), *ɛrəkʰ* (sow, medial form), *ɛrɛːgqkʰ* (be sown), but *ɛːraːkʰ* (that which is sown), *ɛːretˈaːe*, *ɛːrketˈaːe*, *ɛːredaːe*; *daːl* (strike), *daleːme* (strike him), but *daːliːcʰ* (the one struck), *daːlˈkoːm* (strike them), *daːlˈkopeː* (strike you them).

147. (a) When monosyllabic words take an infix or get a prefix reduplicating the first two letters, the thus resulting dissyllabic word has a short vowel in the first syllable and keeps the quantity of the original vowel in the second.

(b) When dissyllabic words take an infix in their first syllable with the first vowel repeated before the infixed consonant, the two vowels thus resulting are generally both short, and the new word has really two stress units.

(c) When dissyllabic words have their first letters reduplicated (in the Performative form of the verb), the quantity of the first two vowels in the thus resulting word depends on the structure of the original word. When this has a single medial consonant, the first syllable of the new word generally has the same quantity as the first syllable of the original word, whilst the second vowel is short or very short (see para 139, b). With two or three medial consonants nearly the reverse is generally the case. The first vowel of the new word is short (not, however, very short like the second vowel just mentioned), and the second vowel keeps the quantity of the original first one. Cp. also para 142.

It seems, as if the quantity of one syllable has under certain circumstances to suffice for two.

The third vowel generally keeps its original quantity.

*E. g.*, *ɔːl* (write), *ɔpɔːl* (mutual writing), *ɔːr* (draw), *ɔtɔːr* (the warp of a web), *ɔk'ɔːr* (pull, Perform. form), *lɛːn* (press), *lɛlɛːn* (do., Perform. form), *lɑːi* (tell), *lɑlɑːi* (do.); *baːr* (two), *baɳaːr* (both); *pɛː* (three), *pɛɳɛː* (all three); *poːn* (four), *pono n* (all four), *popoːn* (each four).

*Mucɑt'* (end), *munucɑt'* and *munucɑt'* (end), *bɔlɔː* (enter), *bɔtɔlɔː* (entrance), *oɔoːn* (come out), *onoɔoːn* (place of outlet), *ɔaɳːɔɔm* (mulet), *ɔaɳːɔɔm* (mulet mutually).

*Benaːo* (make), *bebenəːo* (do., Perform. form, also *bebnaːo*), *sir'jɑːu* (create), *sisir'jɑːu* (do., Perform. form).

### Force (Stress).

148. Intimately connected with quantity is *force* and *stress*, perhaps more so in Santali than in our languages.

Three varieties or degrees of force are generally distinguished, a level, an increasing and a diminishing force.

The level variety is common in Santali. To a certain degree level force gives the whole language a character of its own.

149. To appreciate the peculiar form of stress met with in Santali it is necessary to keep in mind the way in which the language is formed and worked, as compared with our own languages.

Our languages belong to the inflectional class. A large part of these is made up of words which are inflected or under inflection. The original form and the different component parts of a word are not always patent; research is needed to trace them; the present form may be a not easily recognizable result of development. In the course of time parts of the original form, vowels, consonants and whole syllables, have been thrown away, a process constantly and

also now going on. Some parts are gradually being felt as not necessary for the meaning, consequently in time as cumbersome, and finally as unnecessary. During this process they lose stress, are slurred over and are ultimately thrown away altogether. The uneven degrees of stress may be one of the results, and also one of the further causes of the development mentioned.

There is another process intimately connected with the one just mentioned; originally separate words are joined together and melt into an entirely new unit.

We thus in our languages get short words (monosyllables) and long ones, some showing a string of syllables, all ruled by or subordinate to a syllable with preponderating stress.

Under such circumstances stress must necessarily become greatly varied and unequal as to degree.

Circumstances such as described are practically not met with in Santali. No consonants and vowels occur only half formed with the remainder left to a forgetful imagination. Nothing is slurred over. Every consonant and vowel get their due and are fully and properly pronounced. Consequently entirely stress-less syllables are not met with.\*

150. The agglutinating principle does not lend itself to producing indissoluble compound words, consisting of a large number of syllables with a corresponding number of degrees of stress.†

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\* There are some apparent exceptions: the stressless echo of a vowel heard in the Performative form of the verb (see para 139 a), and the instances of elimination mentioned (see para 132); these are, however, constant in their form.

It should be mentioned that present day Santals (especially men) influenced by speakers of foreign languages may be heard slurring; out in the villages the writer has never heard such.

† This does not imply that Santali has no originally compound words. Here the working of the present language only is discussed, not the etymology of its words.

To restrict ourselves to Santali: The language is made up of what we here for the sake of convenience shall call base-words and auxiliaries. As base words are here also counted those which add fre-h meaning to or in some way modify or amplify a statement, words to a certain extent corresponding in use to our adjectives and adverbs; in short all words which have an independent existence, generally easily recognized by their being able to take a suffix.

First as to the base: This generally is, although not always and not necessarily, one single word; it may be, and often is, double words or more, sometimes even what we would call a whole sentence which is treated as a fresh "base".

Ordinarily the base word is a monosyllabic or a disyllabic stress unit, or even trisyllabic (these will be mentioned further on, as they are not always, properly speaking, one stress-unit).

To the base, which represents a concept, the auxiliaries are added, one or more of a number of speech-forming suffixes, infixes and postpositions, each having their specific value and meaning, being the means by which the concept expressed in the base-word is brought into relation to, or given its place in concrete reality or what represents the same.

These suffixes etc. have a practically constant, fixed sound (with reference to small variations in the vowel sounds of these, see para 19 ss. on Harmonic Sequence).

Now it is to be particularly noted that the base with its suffixes etc. does not melt into one new compound word, with heavy stress on one syllable and a number of different degrees of minor stress on the rest of the word, because the whole has become a fixed compound, recognized as a new unit. Such is not, as already stated, met with in Santali.

The base is there, the suffixes etc. are there, all in their entirety, showing themselves as they are and for what they



are, with their specific meaning peculiar to themselves, standing on their merit and representing themselves, never fused into an indissoluble unit with something else. Each suffix etc. has a meaning which must be expressed to ensure completeness. Consequently no suffix etc. can be left out without maiming the whole in some way.

151. A characteristic of the language is its simplicity\* as to word formation and forms. The mass of irregularities of construction commonly met with in inflectional languages is foreign to Santali. Except the glideless combinations of a consonant and its corresponding nasal, the language has not inside the same syllable any consonant combinations necessitating any special stress in pronunciation.

The natural result of the state of matters described is that Santali cannot well have, and does not have so many different degrees of stress. The stress is less varied, it is comparatively even or level. The—comparatively—very strong stress needed to sustain a number of weaker degrees of stress, or to effect a clear pronunciation of a combination of several consonants, is wanting †

The very weak stress, so weak that it may be called

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\*A language like Santali naturally has not the immense variety of words found in our languages, words which are the direct result of the needs of the development of civilization constantly freshly coined according to want, or borrowed from other languages. Santali has, of course, borrowed a large number of words from other Indian languages; but foreign words to be adopted must be altered in form so as to comply with Santali phonetic demands. Whatever may be said as to the poverty of the language in some respects, in others it is rich, even exceedingly so. The language shows an inclination for having a specific sound rendering for anything observed by any of the senses, but what wealth the language has, is a wealth in simple words, not in forms.

†This will not of course, be understood, as if the stress may not in Santali be *realiter* as strong as in other languages; it is only the relativity which is here spoken of, the heavy stress courted as a multiple of so and so many of the weakest degree of stress.

stress-less, so very common in our languages and often found on syllables about to disappear, is not met with, the only exception being what is mentioned in para 139. As already explained, every syllable has a meaning which must be there and consequently have some stress. When the expression stress-less is used now and then here, it is only for lack of a more convenient word. It stands for something like unemphasized.

152. The difference as regards stress between our languages and Santali is within certain limits due to the difference in the word formation and in the construction or working of the languages. There is a difference as to relative degrees, and there is a difference as to rhythm, both in the single words and in the sentences.

153. (a) It is a peculiarity of the spoken language, that it is cut up into stress-units, consisting of one or two syllables, or sometimes even three, each stress-unit having stress in accordance with the importance necessarily attached to it, both as to meaning and as to position in the sentence.

The expression stress-unit previously referred to (in paras 19 ss, when discussing Harmonic Sequence in Santali) is, for want of a better word, used to denote the syllables which in speaking go together with one main stress, the force of which sustains the unit, until another comes, or, as it might also be expressed, the sounds (syllables) which belong to the sphere of one stress. It might be misleading to say that such a unit has one predominant stress sustaining the rest. The difference as to degree of stress between the syllables inside one unit is often so small as to be nearly imperceptible. There seems, however, to be something sustaining the whole of a unit.

What is here called a stress-unit may comprise a base word or a part of such, or any other part of speech, but

not ordinarily a combination of two base words. Monosyllabic suffixes may under certain circumstances be welded together with a base word into one stress-unit, the same may happen with a suffix and a following infix, or with any monosyllabic word, or a word with stress on the ultima and a following *ge*.

To further explain what is meant, it might be added, that whilst several stress-units may be heard in the same air breathing, there is a division between each, perhaps difficult to distinguish, but still there. The remarkable influence on each other of the vowels inside one stress-unit (an influence which is limited to what is here called stress-unit) and the cessation of this influence, as soon as a new unit is reached or formed, conclusively prove the existence and reality of such units in Santali. In rapid language the here discussed division is not so easily recognized; otherwise the units are generally obvious. Looked at from another standpoint: it may be said to be the agglutinating principle which makes itself felt.

(b) There is a question to be answered, whether a stress-unit may consist of more than one or two syllables. The writer is inclined to think, that in all genuine Santali words and in all properly agglutinating parts and forms of the language the number of syllables does not ordinarily go beyond one or two. In formations which taste of inflection (in the Performative and Reciprocal forms of the verb which will be examined further on as to stress) there may be three syllables; these are, however, often dissolved into two stress-units.

In words with stress on the penultimate we may have trisyllabic stress-units. *E. g.* *sa'parəm* (a certain bush), *en'game*, *ce'tame*, *mo'came*.

In rapidly spoken language it seems to the ear (on which, however, it is unsafe to rely), as if trisyllabic

stress-units may also be used, when a dissyllabic word gets a monosyllabic stress-less suffix added (as, for instance, in 'hotete, 'onkate, etc.; if the speed is slowed down, we at once get two stress-units ('hole'te, 'onka'te). It may be a question whether also this form of stress is not a little step beyond agglutination-stress.

154. A stress-unit is not always unalterably the same. There may during the agglutinating process be a change both as to number of syllables and as to place of stress. Cf. especially paras 161 and 167.

155. There is in the language no fixed general rule for where stress is to be applied, whether on the first or on the last syllable of a word (or unit) or elsewhere. The stress may be anywhere, only that in the same word it will remain in the same place, except as noted below.

Suffixes, infixes and postpositions will not affect the "inside" stress of a word, except as to strengthening or weakening the degree, provided the suffix or infix or postposition does not melt into one stress-unit with the word.

156. After these preliminary remarks we shall proceed to examine how stress is applied in Santali, taking the stress of single words first, base-words in their simple and augmented forms.

In the examples given in this section stress is shown by a vertical stroke at the top of the line ('). Where it may be of importance to show, that compared with its neighbouring stress-units a particular stress-unit has a minor degree of stress, this is done by putting a similar stroke at the bottom of the line ,), in both cases before the syllable which takes the stress.

157. As remarked above, quantity and stress are intimately connected in Santali, quantity always making itself felt:

(a) The very short vowels described in para 139 naturally never have stress.

(b) *Monosyllabic* words (apart from suffixes etc. which will be separately mentioned) have stress as a matter of course. They generally have a long vowel, practically the only exceptions being words ending in a checked consonant. These mostly have a short vowel. Monosyllabic base-words do not become stress-less in heavy surroundings. The only deviations from this rule occur in the circumstances mentioned below para 167.

(c) *Dissyllabic* words may have stress on either the first or the second syllable. Certain rules followed by the language in regard to such words are discernible.

(d) Dissyllabic words formed by reduplication of a monosyllabic base (consisting of a consonant with following vowel) have a slightly perceptible preponderance of stress on ultima, except where a nasal has been inserted between the two syllables of the new word, giving preponderance of quantity to the first syllable.

A number of words denoting relationship are examples:-  
*ba'ba* (father), *g'g* (mother), *ma'ma* (also *ma'm*, maternal uncle), *ka'ka* (father's younger brother), *tu'ta* (grandfather), *na'na* (father's elder sister), *da'da* (elder brother), but *'goŋgo* (father's elder brother, from *go* ; further *l<sub>2</sub>'l<sub>2</sub>* (hot, from *l<sub>2</sub>*, burn), *hi'ni hi'hi* (laugh), *h<sub>2</sub>'h<sub>2</sub>* (call out, from *h<sub>2</sub>*), *ju'ju* (acid, from *ju*, fruit).

(e) Dissyllabics formed from monosyllabics by infixing a consonant or by reduplication of the first two letters have stress on ultima (cf. para 147). Dissyllabics formed from other dissyllabics by inserting a consonant after the medial one may keep the stress in the original place.



*E. g.*, *tɪ'riŋ tɪ'riŋ* (tinkling sound), *ɔ'tɔr* (warp of a web), *ɔ'n l* (stripe), *ɔ'p l* write to one another), *ŋu'tum* name), *gɔ'noŋ* (bride-price), *ba'nar* (both), *pɛ'ne* (all three), *ba'bar* (by two, each two), *sɪ'si* (ploughing), *rɔ'rɔr* (speaking), *la'lai* (telling), *bhɔ'ɔr* (blessing); *gu'tu* (insert), *gut'lu* (tickle) and *'gutlu*.

(f) Dissyllables with final vowel and the same vowel in both syllables generally have (just perceptible) stress on the ultima.

*E. g.*, *bɛ'le* (ripe), *ge'lɛ* (ear of grain), *la'ga* (drive away), *ɔ'hɔ* (on no account).

(g) The same is generally the case with words consisting of two vowels with a medial consonant, a frequent form of genuine Santali words. If, however, as sometimes happens, a nasal is inserted before the medial one, the preponderance of stress goes to the first syllable.

*E. g.*, *a'ju* (feed), *a'ŋũ* (give to drink), *ɛ're* (deceive), *e'to* (break in), *u'tu* (curry), *a'gu* (bring), *i'di* (take away), but *'indi*, *i'ri* (a millet), *ɔ'hɔ* (no, emphatically), *u'ru* (a beetle), *u'pi* (winged ants), *u'ta* (root up), *u'ta* (disgorge).

This rule is not always followed, likely on account of the origin of the word in question; the first syllable may contain the most essential part of the word.

*E. g.*, *'ulo* (prohibitive particle, no, don't).

(h) If in a dissyllabic word one vowel is comparatively long, or—what amounts to the same—a syllable combination of a vowel and its following consonant or consonants is long, and the other is short or comparatively shorter, then the syllable with superior quantity has the stress. *E. g.*, *e'to* (break in), *'daŋgra* (bullock), *o'rak* (house), *'bɔrlɔm* (spear), *'sarjɔm* (the sal tree).

In accordance with this rule syllables with diphthongs generally have preponderance of stress, because diphthongs

will always be comparatively long. If there are two diphthongs in a word, the stress is about equal on both, with generally just a preponderance on the last syllable. When this does not happen, we hear two stress-units.

Above rule regarding stress in words with diphthongs is without exception applicable to the large number of words ending in *-ao* or *-au*.

*E. g.*, *ma'nao* (honour), *bu'j'hou* (understand), *la'p'hai* (fight), *'jaora* (collect), *'sau'ri* (thatching grass), *kam'hai* (lose time), *qu'lau* (bring into confusion), *kau'mau* (make tumultuous noise, often two stress-units; in such cases sometimes pronounced *'kao 'mao*, as two separate words), *'au'ra'ha* (heedless, two stress-units), *e'ae* (seven).

The only apparent exceptions to this rule about the stress of diphthongs which the writer can call to mind are the following: When the verbal subject pronoun of the 3rd pers. sing. (*e* or *i*) is attached to the word immediately preceding the verb and this has a final vowel, a diphthong is generally the result. This diphthong does not influence the stress of the word. If this word has stress on another syllable than the ultima, the stress will remain where it is in spite of the diphthong. This shows how little stress this subject pronoun originally has.

*E. g.*, *'ai'ge* (then he), *'on'koe* (those he), *'ni'ndai* (at night he), *'da'ng'rae* (a bullock he).

On the other hand when a diphthong is formed by *e* or *i* being suffixed to a verb ending in a single vowel (in the Indeterminative or Future and the Imperative), this will intensify the stress. *E. g.*, *a'guime* (bring you), *du'hueme* (put down).

When a word with a diphthong in the first syllable and final vowel gets the medium suffix (*'k'*) added, the stress is so equal on both syllables as to suggest two stress-units. *E. g.*, *'sau'ri* (thatching grass), *'sau'rik'* (become do).

158. As a common rule it may be stated, that in *dissyllabic* words the stress is generally nearly equal with a just perceptible preponderance on one or the other syllable, this preponderance being due to the superior quantity of one syllable.

(a) The common rule being for the vowels of a dissyllabic word to be of nearly equal length, it is obvious that the weight of a syllable may be more or less due to the consonants. A reference to the section where syllables in Santali are examined (para 125) will show that in ordinary words with a single medial consonant this is in pronunciation drawn to the following vowel. Now an initial consonant has little, if any, influence on the quantity and stress of a syllable. It is the consonant following a vowel which counts besides the vowel.

The result of this peculiarity is as follows: One single medial consonant does not count. An aspirated medial consonant apparently does not influence the stress differently from an unaspirated one. With two medial consonants, if the first is long, this may give a preponderance of stress to the first syllable, where it phonetically belongs. With three medial consonants the stress will generally be on the first syllable, even if the vowel of the first syllable is a little shorter than that of the second syllable.

(b) With single final consonant and single medial consonant, the stress will generally depend on the nature of the final consonant. If this is a checked consonant, the final syllable will in dissyllabic words have the stress,\* if another consonant, the stress may or may not be on the ultima. The tendency is to draw the stress to the ultima. With two

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\* A few exceptions are met with: *ḅarič* (bad) when used simply to emphasize, having the meaning of exceedingly, is sometimes pronounced *'ḅa'rič*, so also *'be-'ḅarič*, which has the same meaning.

final consonants the stress will be on the ultima, provided the whole is not resolved into two stress units.

*E. g.*, *kə'de* (a millet), *ko'ra* (boy), *ku'ri* (girl), *ha'ram* (old man), *bə'rgl* (raw), *mə'ron* (death), *'harna* *'morna* (death), *bit'kil* (buffalo cow), *udh'mə* (leisure), *aṭh'ṛē* (prop), *'daṅgra* (bullock), *'maṛṇḍi* (a weed), *'maṇjhi* (headman), *'maṇjhla* (fourth son), *'maṇḍwa* (the marriage shed), *kam'hāṇḍ* (part of loom), *'ṭaṇḍi* (plain).

(c) Dissyllabic words also sometimes seem to be dissolved into two stress-units. This may especially happen with words ending in a checked consonant. *E. g.*, *'Jil'pit'* (a name), *'ḷeṇ'geṭ'* *'ḷeṇ'geṭ'*.

159. The difference in stress on the syllables of words of the constructions just mentioned is often so small that it is very difficult to distinguish where the greater stress is, especially in ordinary quiet language. When a speaker gets excited in some way, the syllable mentioned as having the stress generally gets a considerably lengthened vowel, and the stress becomes evident.\* Cp. paras 138 and 144.

160. *Trisyllabic* words are, as mentioned, found in the language. Some of these are new bases formed by redupli-

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\* The writer one day asked an intelligent Santal where he put the stress in words like *baba* and *gogo*; he was not at all sure, but seemed to be inclined to have stress on the first syllable, if there was any difference at all, which he did not think there was. Then his own child was heard calling out *'e' 'gə'*, *'e' gə'gə'* with a much lengthened ultima. There was no doubt any longer. In the experience of the writer the pronunciation of Santal children is very instructive as to quantity and stress.

When the stress is felt so very nearly equal by a Santal, it is not strange that a non-Santal should have difficulty in hearing where the proper stress is, and combined herewith have difficulty in properly rendering a stress so much at variance with what he is accustomed to in his own native language. It is one of the real difficulties for a foreigner to get away from the "accentuating" pronunciation of our own languages.



cation of the first two letters of a dissyllabic word (always and only in the Performative form of the verb), or by insertion of a consonant in the first syllable of a dissyllabic word. Others are words adopted from other languages.

(a) Words of the first mentioned classes are as to stress generally dissolved into two stress-units with a heavier stress on the ultima, whilst the two first syllables as to "internal" stress are treated differently according to their nature.

With reduplication the stress may be on the first or on the second of the two new syllables. If the original word has one medial consonant, the stress will be on the first syllable; if there are two, the stress will go to the new second syllable (cf. paras 147 (c) and 158 (a)).

(b) When a consonant is infixed in the first syllable, the thus formed two fresh syllables have very nearly equal stress with a slight, nearly imperceptible preponderance on the second.

(c) Many trisyllabic words, probably originally compound ones, are pronounced as having two stress units. As e. g., *li'ru,et' paṭh'ru,et'* (used in *binti* about cattle); *'tətno-'pak'* (a certain tree).

(d) In adopted trisyllabic words the stress varies. The general rule of pronunciation is also here to form two stress-units, the first two syllables forming one and the last syllable a second stress-unit. In some trisyllabic words the stress is on the penultimate; in such cases there may be one stress-unit, or there may be two.

(e) *Polysyllables* are all dissolved into stress-units with at most two syllables in each. The general rule is to get

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A foreigner who cannot distinguish, or is unable to properly render the peculiar Santali stress, puts stress as it would be natural to have it in his own language in words of a similar size. This is the most natural explanation of one kind of mispronunciation with non-Santals.



quite separate words, each consisting of a part of the original adopted one.

*E. g.*, *bebe'nao* (from *benao*, to make), *si,sir'jaŋ* (from *sirjaŋ*, create), *a'naŋ,go* (from *ārgo*, descend), *mu,nu'cat'* (from *mucat'*, end), *e,tə'həp'* (from *əhəp'* begin), *ma,pa'nao* (from *manao*, honour), *ru,pu'hət'* (from *ruhət'*, scold), *'parga'na* (over-chief), *'para'nik* (village headman's assistant), *,moha'jən* (money-lender), *'phaŋ'dari* (criminal), *'ada'lət* (court), *'asta'bəl* (stable), *ci'ga,ri* (mock), *pana'hi* (shoe), *sari'au* (make even), *'kar'bari,a* (who manages), *si'khauna* (admonition), *pa'thaona* (messenger), *jo'gari,a* (frugal), *na'har,ni* (needle, knife and tweezer instrument), *sa'parəm* (a small bush), *,phaŋsi'ara* (a hypocrite), *'barna ku'lar* (vernacular), *'sakti'phikit* (certificate), *gə'bər 'mēt* or *gə'bər 'mentə* (government).

161. Words formed by the insertion of the checked consonant *k'* require a few separate remarks. The thus formed words may be dissyllabic, trisyllabic and in a few cases quadrisyllabic. As elsewhere stated, the vowel preceding a checked consonant always has some stress (cf. para 158 (b)). This quality of the checked consonants makes itself felt when an *k'* is inserted.

(a) Dissyllabics formed in this way from monosyllabics follow the same rule as words of the same kind formed by infixing any consonant (see para 157 (e)), with this qualification that with an *k'* the first vowel of the word gets a considerably stronger stress than the first vowel of words formed by infixing other consonants, never, however, so strong as the stress of the second syllable. The formation mentioned is confined to monosyllabics with initial vowel. *E. g.*, *,āk''āt* (from *āt*, eager, hard), *,ək''ər* (from *ər*, pull), *,ək''əl* (from *əl*, write, draw).

(b) When an *k'* is inserted in the first syllable of a dissyllabic word, this will influence the stress, either by

augmenting the stress of the first syllable, if the original word has stress on this, or by altering the stress, if the original word has stress on ultima. In the last mentioned cases the first syllable may take the stress, or the stress of both syllables may become so equal, that it may be doubtful, whether we have not to do with two separate stress-units. *E. g.*, 'sek'ndra (from 'sendra to hunt), 'ek' rē (from ē'rē, to deceive), 'lak'ga (from la'ga to chase, drive away), 'lek' kha (from le'kha to count), 'lek' kha'wak' (from the same), 'dak',dal (a double Performative form, through da'dal, from 'dal, to strike), 'dak',pal (Performative of the Reciprocal from da'pal form dal).

The very short vowel (see para 139) has not been written in the examples given. It does not influence the stress.

(c) When proper trisyllabic words are formed by the insertion of an *k'* in the first syllable of a dissyllabic word; or an *k'* is inserted in the first syllable of a trisyllabic word, the stress is generally on the vowel immediately preceding the *k'*. The only exceptions to this rule are a couple of words with an initial nasalized vowel and a few words with an initial diphthong.\* In both cases an anticipating stress is heard on the vowel preceding the *k'*; but the principal stress is retained in its original place.

Trisyllabic words with stress on the penultimate also get the *k'* inserted in the first syllable, the preceding vowel getting an anticipating stress, provided two stress-units are not formed.

(d) If words show more than one stress-unit, these units are brought more strongly out in the formation discussed.

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\* Words with initial diphthong, whether mono-, dis- or trisyllabic, get only the first vowel of the diphthong repeated before the *k'*.

As a rule the *k'* will be inserted in the first stress-unit, but not always.

*E. g.*, 'sək'ri'qu (from ,səri'qu, make even), 'cik'gari (from ci'gari, mock), 'ək''aidə,ri (from 'aidə'ri, possess), ,āk''ārgo (from 'ārgo, descend, let down), 'pək'ru'chun (from ,puru'chun, atone; the form 'puruchu'cun is also heard, ,ku'ru 'muk-tu (from ku,ru mu,tu, exert oneself).

162. The pronouns and pronominal adverbs require a few separate remarks

(a) First the *personal pronouns*. These are in their independent form really compounds, consisting of the demonstrative element *a* and the pronoun itself,\* and always have stress, more or less.

In the independent forms, if dissyllabic, viz. in the dual and the plural, the stress varies. The stress is nearly equal on both syllables. Generally there is a slight preponderance on the *a*; but when it is wanted especially to emphasize the "personal" part of the pronoun, this may get a perceptible stronger stress. In such cases the emphatic *ge* is frequently added to the pronoun.

(b) The suffixed personal pronouns, when used as subject pronouns of verbs, are somewhat unequally treated. If the subject is a personal pronoun and is to have stress, the pronoun is always given in its independent form (or in

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\* Except *in*, which in Santali has no *a* (this *a* is found in other related languages, as Munḍari), and *e* or *i* which has no independent full form, a demonstrative doing service for the 3rd pers. sing. *Ac* (self) might, however, be compared; this consists of the same demonstrative element *a* and *č* (cf. the suffix *-ič*, also Munḍari *ae*). *Ac* is 3rd pers. sing.

It might be mentioned, that the infixed personal pronouns in verbal constructions with indirect object in the Indeterminate (Future) and in forms derived from this all have a prefixed *a*. Whatever the origin of this *a* may be, it should not be confounded with the *a* of the full forms of the personal pronouns as otherwise and ordinarily used. Cf. para 164 (f).

the 3rd pers. sing. in the form of a demonstrative) elsewhere in the sentence, in addition to the suffixed form prefixed or suffixed to the verb. The suffixed form has little or no stress when tacked on to the word preceding the finite verb (which is the most common procedure) or to the finite *a*. Cf. para 157 (h). If the subject pronoun is added to verbs without the finite *a*, i. e., in what we might call participial construction, the subject pronoun gets some stress about as much as the finite *a* with the pronoun would have in a finite construction.

(c) In the Imperative the subject pronoun (always the infixed form) has generally no stress. If a personal appeal or urging is intended, the pronoun may, however, get separate full stress. This last is often heard in connection with the Repetitive form of the verb, as *ta'ram ta'ram'pe* (walk, keep speed up).

(d) When used as object-infix the infixed forms may or may not have stress, the pronoun of the 1st and 3rd pers. sing. in this case always taking stress.

(e) The possessive forms of the personal pronouns, that is to say, not those formed by adding a suffix or a postposition (which is a kind of adjective-formation), but by prefixing *ta* (or in the first pers. sing. only a *t*), are treated like other monosyllabics or dissyllabics. In the dissyllabic forms the stress is very nearly equal on both syllables with a perceptible preponderance on the pronoun itself. The "personal" part may be emphasized.

*E. g.*, 'am 'dɔ 'amte, gem 'sɛnle, na (did you go yourself?);  
'babon 'akin kə'kina (shall we not make them a pair?);  
'akoko i'di'ket'ta'koa (they took theirs away themselves);  
'abo (we), 'abon (we); a'legele (but also 'alɛ'gele) i'dike'deta'lea  
(we ourselves took our one away).



(f) The *demonstratives* and demonstrative adverbs and particles generally have stress on the first syllable, with this qualification that the final vowel may be considerably lengthened and given stress, if the speaker wants especially to single out person or place. The demonstratives 'one and 'ote have stress on the first syllable.

It might be noted that all dissyllabic pronouns seem to be compounds of two elements.

E. g. 'uni (he), u'nige (just he), 'hani (he far off), 'nonde (here), but 'non,dege or 'non'dege.

163. *Compound* words which are obviously and easily dissoluble compounds (see above para 149) and not representing a new single concept, have stress according to which part of the compound is to be emphasized.

In simple compounds, where both component parts are of equal importance, separate stress-units are the rule.

Compounds consisting of a word with a prefixed privative particle are also generally two stress-units. If the single word is monosyllabic, we have mostly only one stress-unit, with stress on the privative. If it is dissyllabic, we may also have one stress-unit, in this case with stress on the penultimate of the new word. Except for the words formed by putting *ban* before a word (always two stress-units with a preponderance on *ban*), all these words are borrowed from other Indian languages. The examples given below show the forms.

If the original meaning of the compound as a negation has been practically forgotten and the whole represents a new positive concept, the stress may be moved from the privative particle to the second part of the word.

E. g. 'be,hok (unjust), 'be,lek (unworthy), 'be,an (unlawful), 'be,at (without opportunity), 'be,jor (odd, unpaired), 'be,juri



(unequal), 'be'dhəɾəm (unrighteous), 'bin'dəɾ (without fault), 'abo,la (mute, without language), 'ə,suk (unwell), 'na,car (helpless), 'nichora (unalloyed), 'nirjo,la (waterless), 'ni'sqrthi (without protector), ni'cind (heedless), na'hak (in vain, where the original meaning has been obscured), nir'dhək (without restriction): 'bañ 'jut (unwell); 'bañ-rə,rə'gəḱ (unspeakable).

164. We shall then proceed to examine how stress is applied, when the auxiliaries referred to above are used, and first see how stress is applied to these.

(a) An added determinative suffix (-ic or -ak) has always some stress and is generally a stress-unit by itself. *El. g.*, 'né'lic' (the one seen), 'gəc'ic (the dead one), 'ə'lak (what is written), 'ləi a'kawa'de,ak (what has been told him); teñ'gon kə'nic' (the one who is standing; -ic' here one stress-unit with kan).

(b) The same may be said of the monosyllabic postpositions. Two of these (*re* and *te*) may, when added to a word and with nothing following, go together with the word to which they are added, as if they were part of the word. In such cases they may have no stress. This mostly happens, when *re* and *te* are attached to monosyllables and words with stress on the ultima, provided this has not a final checked consonant. These postpositions, however, often also have separate stress. It seems to be optional. It depends partly on the speaker, and partly on whether the word to which the postposition is attached can form one stress-unit with this or not. *El. g.*, 'ətre (in, on the ground); 'ləite or 'ləi,te (by telling), ta'ram i'dite, or i'di'te (by walking on), but 'en,de're (such being the case), o'rak,te (in the house); 'in'then (with me), 'am'ren or 'am,ren (your one), 'uni'szə (towards him), 'am'khon (from you); 'ət,ten'ko (those on foot).

(c) Dissyllabic postpositions and dissyllabic suffixes get proportionally the same stress as similar base-words,

*E. g.*, 're'ak, tu'lu'e, se'let', se'nak, 'songe; a'kat', a'kan a'kae.

The suffixes a'ka,wat' and a,kaw'an are only apparently trisyllabic and really a word a'ka with a monosyllabic suffix, and the stress is as described below (f) and (g).

(d) Monosyllabic suffixes of the verb vary as to stress: et', ket', and let' of the active verb have some stress (although ordinarily not so much as the base word), so long as the -t' is kept. If this is altered into d (see para 109), the stress is moved to the following vowel (syllable) with which the suffix forms one stress unit. *E. g.*, i'di'yet'-ko,añ (I take them away), 'nel,ket' 'hqr (people who saw); 'at'le'dae (he lost it).

(e) The suffixes le and ke have no stress, except when they are final or are followed by a vowel, when the e is lengthened and gets stress, with a vowel following generally nearly equal to the stress of this. *E. g.*, 'menle'khanem (if 'you say); q'hon' 'men,le,a (I can not at all say); i'di-'ke,am (would you care to take it away).

(f) The monosyllabic suffixes of the active verb with indirect object (-a, -ak, -at') have stress as follows:—  
-ak has always stress, -at' follows the same rule as -et' (*vide supra*), -a has stress when standing alone, and when followed by e, m or ñ; in other cases the stress goes to the following. In other words: the suffix including the pronoun has stress; if the whole is dissyllabic the pronoun takes the stress. The only exceptions to this last rule are those mentioned para 140, footnote. *E. g.*, ,ben-'get'ak ka,nae (he is looking at it), 'nel dare'at',ae (he could see), je'ret'am (put fire to); 'lai,ae,añ (I shall tell him), i'di a'de,ae (he took it to him).

(g) The suffixes, ka, kak and kat' follow the same rule as the suffixes of the indirect object. The suffix

*koŋ* or *ko'* is treated like *kaŋ*; *jən* and *an* have stress, more or less, according to what follows. It should be remarked that when a monosyllabic suffix is followed by a stress-less syllable, the stress of the suffix becomes stronger. Cf. para 145. *E. g.*, *də'hə'kam*, *də'hə'kaŋ,me* (put it aside), *i'di'kaŋ,ko,ae* (he took them away for a certain purpose), *i'dika'ae* (he took him away); *'thir'kok,ae* (he will be quiet); *'nel'jənme* (look out for yourself); *'ce'o'a,nae* (he learnt).

(h) The suffixes *en* and *len* have no stress, except when followed by a stress-less syllable (as *ge*), when some stress is heard. The same applies to *ken* and also to the copula *kan*. *E. g.*, *'sene'nae* (he went), *'he'le'nae* (he came and is away again); *'adqe 'he'enge* (thereupon he will come), *ta'hē kan'ae*. (he was).

(i) There is one verbal suffix left to be considered, *-ok'* or *ək'*, of the Medium (or Passive). This always takes stress. It takes as to stress precedence over the base. If the *-ok'* is added to a monosyllabic base, this gets its stress removed to the suffix with which it forms one stress-unit. Even when added to dissyllables ending in a consonant, the suffix takes the principal stress, as a rule, however, forming a separate stress-unit.

It might in the way of explanation be pointed out that *-ok'* is not a tempus suffix proper. It alters the point of view from which the concept of the base is contemplated.

It is interesting to observe the difference in stress between the pure medial *-ok'*, and the same suffix combined with the Optative or Intentional *ke* or *ku* in *kok'*. This *kok'* does not combine with the preceding syllable into one stress unit, but generally is one by itself. It is *thi'rok,me* (shut up), but *'thir'kok,me* (be quiet); *ε'mək,am* (you will give), but *'εm'kək,am* (would you mind to give?).

165. The natural stress of a word is, as a matter of course, kept in its original place, so long as the word stands alone without anything added. There are some strange deviations from this rule in a few words. One instance has been just mentioned above para 132 (e), that of *'ènga*, which has regularly the stress on the first syllable, but used as a kind of swearing may have stress on ultima. It is, however, always followed by either *-te* or *-me*. It is always *èn'ga''me*, but may be either *'ènga,te* or *èn'ga'te* or even *'nga'te*. Cf. also *moç'a''me*, *ce'ta''me*.

Originally compound words are as to stress liable to be somewhat altered under the influence of the mentality of the speaker. How quantity is influenced in the same circumstances has been previously mentioned (see paras 138, 144, 145, 158 (c)). Single words may be resolved into two stress-units, and ordinarily fairly equal stress (see para 159) may become very unequal.

*E. g.*, *'a''dɔ* and *a'dɔ*, *'ha'ere* and *ha'e're''*, *'a''lo* and *a'lo'' se*, *'non'dɛ* and *'non'dɛ*, *a'di* and *a'di''*.

166. Stress may be augmented when more force is needed to sustain stress-less suffixes following. In this way also otherwise nearly stress-less suffixes may receive some stress, when followed by other stress-less parts of speech.

167. When a monosyllabic suffix or infix is added, the stress may be moved forward to the suffix or infix.

A necessary condition is that the suffix or other part of speech melts into one stress-unit with the word or syllable to which it is added. One such instance has just been mentioned (the Medium *'ok'*). The same happens when the direct object infix of the 1st and 3rd pers. sing. is added to the base or to a suffix in the course of verbal construction. The *in* (*én*) or *e* takes the stress, the preceding syllable forming one stress-unit with the pronoun.

The alteration of stress is especially observable with monosyllables. When the suffix or infix mentioned is added to dissyllabic words, the stress also then comes on the suffix or pronoun, but the combination is generally dissolved into two stress-units. The base word in this case keeps its stress, but in a "retired" manner, if such an expression is permissible.

The alteration in stress caused by the formation of new bases by infixes, reduplication, etc., has already been mentioned.

When the emphatic particle *ge* is added to a verbal suffix, it will make a monosyllabic stressless suffix take stress, provided this and the *ge* forms one stress-unit.

E. g., 'ńę'l' (see), 'ńę'lqk' (be seen), 'ńę,lq'gqk' (be seen), 'ńę'pe'l' (let see each other), 'ńę,pe'lqk' (see each other), 'mar-sal' (light), 'marsa'lok' (become light), 'ńę',la'e (he will see), 'ńę'le',ae (he will see him), 'ńę'l',ket',a'e ('ńę'l' ke'da'e) (he saw), 'ńę'l'ke'de',a'e (he saw him), 'q'r ki'diń',a'e (he pulled me), 'da'l aka'de',a'e (he has struck him), hqbq'rem (take the child in your arms), 'hęc'en'ge (came), 'ńę'l'ket'ge (saw). But : 'ńę'l'ket',ko'a'e (he saw them), 'ńę'l',ko,a'e (he will see them).

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168. When the restrictions and peculiarities of stress in Santali mentioned are born in mind, it may be said that the language is otherwise governed by the same stress laws as other languages. We shall here touch on these only in so far as Santali shows any peculiarity to be noted.

169. Stress to show importance, or to emphasize a statement or any part of such, is used in Santali as in other languages, with this qualification that it may be a little less observable than in, e. g., our languages, as will be understood, when the above mentioned peculiarity is borne



In mind, viz., that force in Santali is much more equal than in our languages, combined with the tendency to lengthen the vowel to give emphasis. In our languages this kind of stress is generally effected by giving weak syllables a stronger stress than they ordinarily have ; consequently in such cases words in our languages get a stress which is nearer to the ordinary stress of Santali. The monosyllabic, comparatively stress-less suffixes are sometimes in this way brought out into stronger relief, when the meaning they convey is to be especially emphasized.

The same remarks apply also to the stress used to show what is new, what is singled out in contradistinction to something else. The privatives formerly mentioned (para 151) are examples in point.

From what has been previously remarked, it will be apparent, that in Santali the syllables are always given sufficient quantity and are—to use a printer's expression—spaced. The last is also the case with the suffixes.

170. It might be mentioned, that the language itself shows the need of something besides ordinary stress to lend emphasis to any statement. The language has a couple of particles which help to do this and to single out.

We have the particle *ge*, which is very extensively used to emphasize (it should, however, be remarked, that this is not the only present use of *ge*). This particle especially emphasizes quality. When used as here mentioned it may itself take stress, or what immediately precedes *ge* may get stress, even otherwise comparatively stressless suffixes or other words. The stress depends on, whether the syllable immediately preceding forms one stress-unit with this *ge* or not. In case of one stress-unit the preceding syllable takes the stress, otherwise the *ge* gets it.

E. g., *i'di'keḍa'e* (he took it away), *i'di'ket'geḍa'e* (he did take it away); *'nɔŋ'dɛ me'nak'a* (it is here), *'nɔŋ'dɛ me'nak'geḍa'e* (it is certainly here), *'nɔŋ'dɛ'ge me'nak'a* (it is here in this very place); *'biñ kan'a'e* (it is a snake), *'biñ 'kangeḍa'e* (it is a snake and nothing else), *'iñe 'ñɛ'k'i'diñ'a* (he saw me) *'iñ'ge'ye 'ñɛ'k'i'diñ'a* (he certainly saw me, whoever else he may have seen).

Besides *ge* the language has one other particle which might be mentioned, although this is not like *ge* used as a direct emphatic particle, viz., *dɔ*.

*Dɔ* may be said to single out for reference. It is not generally translatable, a fact which speaks for itself. It may in extreme cases be rendered by "as for", "with reference to" or similar expressions. It is most frequently used for marking the subject, but is also used in connection with any other "independent" part of speech. *Dɔ* may follow *ge*.

The further examination of the here mentioned particles belongs elsewhere. They are just mentioned, because their use throws some light on stress in Santali. The language shows the need of something more than degrees of stress alone to give stress or emphasis.

171. Stress is used to keep together what logically belongs together, or to keep separate what is meant to be separate.

The first is not so common in Santali; the other form of stress is one of the common traits of agglutination. Take, e. g., the words *ba'ric' marañ 'hɔr*. If the word *ba'ric'* has a stronger stress than *marañ*, the words mean "a very big or large man" (with such a meaning it is also often pronounced *'ba'ric'*). If, however, the two words have equal stress (*ba'ric' ma'rañ*), the meaning is "a bad, big man".

The word conveying the emphasis has the comparatively stronger stress, just as inside words a syllable may take the stronger stress. It is not the word itself, but the "multiplier" which gets the stress.

172. Santali may like other languages have words of different meaning grouped together with one meaning dominating, the other word or words giving a special point of view from which the first is to be seen, or one word may be a secondary explanation to the other, etc. In such cases the emphasized principal word has naturally the heavier stress.

It is to be noted that in combinations like those mentioned the appellatives are put last and *nom. propria*, or what represents any such, first.

E. g., 'Maṭru ɣarga'na, and 'Maṭru ɣarga'na (the first overchief Maṭru, the second the M. who is *ɣargana*, and not some other M.); 'Gulu ɣastɔr (pastor Gulu), but 'Gulu ɣastɔr (G. the pastor, not some other Gulu). 'Ḍaktɔr sa'heb (the European who is a doctor), sa'heb ɣaktɔr (the same to be distinguished from an Indian do.); 'maŋ'hi ɣola (the headman's tola); 'hɔɾ o'ɾak' (a Santal's house); o'ɾak' hɔɾ' (house person, that is, either wife or husband); 'deko o'ɾak' (a Hindu's house).

Note the following: 'arsiŋ ɣarsiŋ (lit. one day two days, a short time) 'mit' ɣar (one two, a couple, equal stress), ɣar ɣe (two-three), ɣe ɣon (three to four), ɣon mǝrǝ (four to five), but further mǝrǝ ɣurui (five to six), ɣurui ɣae (six to seven), ɣae ɣiɾal (seven to eight), ɣiɾal ɣarɛ (eight to nine), ɣarɛ ɣel (nine to ten). They do not use these combinations with Santali numerals for higher numbers. When spoken with deliberation the numerals mentioned may have equal stress on both words. Further: ɣel ɣarɛ (nineteen), ɣarɛ ɣel (ninety), ɣarɛ ɣel ɣe (ninety three).

173. Santali in verbal constructions very frequently has a base consisting of two, sometimes three, or even four coordinated words. In such cases the stress may be equal on two words, especially when the second word gives some further explanation to the meaning of the first one, or the second is a repetition of the first. The more common is, however, that the second base word gets the stress, the second word in such cases giving the result or the finish of the action described in the first.

*E. g.* *i'di to'ra* (take along), stress about equal, but *tora* may take a little stronger stress (*i'di to'ra*) when the act of taking along in addition to one's ordinary action is emphasized, and in the same way *idi* (*i'di to,ra*) when the removing is to be emphasized); *'nél a'gu* (lit. seeing bring, go and see); *dā,rā ba,ra a,gu 'sat ke,da,ko* (they came back after having finished walking all over); *'nél 'gōd* (see dying); *'nū 'bul* (drink oneself drunk); *'dal 'gōd* (beat to death).

174. It was remarked above that the language is cut up into a number of stress-units, each consisting of generally one or two syllables. This combined with the also previously mentioned peculiarity that all syllables are fully pronounced, gives the language a rhythm of its own.

To show this a few sentences are here given, using the marks for stress and quantity.

*'Boŋ'ga ba,ra 'jō'm ba,ra ,ka,te 'dihri 're,ak̄ a'kyu'r*  
Sacrificed, eaten having hunt-priest's guiding  
*le,ka 'phā'd 'bi'r ,ko bō'lek̄,a. A,dōm 'hō'ṛ 'dō*

in accordance with crowd forest they enter. Some people  
*bē,gōr ,tamak 'ru'ite ha,pe ha'pe'te ,ko 'sē'n la'hak̄,a*  
without drum beating quietly they go in advance

tā'rāk lā,git', 'a'r a,dqm a,dqm 'hō'r 'bi'r mu'cat'  
 lie in wait in order to, and some people forest end  
 dhā'bic' 'hō ha,pe ha'pe'te ,ko 'sendra i'di'a, 'a'dō 'bi'r  
 unto also quietly they hunt along; then forest  
 mu,nu'cat' 'he'n ,ko tā'rāka, jā'hā'le,ka,te ,disom  
 end at they lie in wait in order that country  
 'phā'd ,ko ti'o'g, re 'jan'wa'r e'tak' 'bi'rte ,se 'tan'di,te  
 crowd they reach when, animal other forest or open land to  
 'a'lo,ko 'dā'r parō'mok'.

not they run over.

A,to,tē'ye sē'nqk' lāgi'dok' ,kan ta'hē'kan, re ru'a'ge  
 Village to he going on the point of was when fever  
 e'hop' 'got' ke'de'a. 'A'dōe me'ta'di'n,a, 'a'mge  
 commence suddenly did with him. Then he said to me, you  
 sē'nqk' ta'lan', me; 'i'n, dō q'hōn' 'sē'n da,pele,na'  
 go for us to you, I on no account I to go shall be able.  
 Ha'peñ 'phāri,a'lenge. 'A'dō 'ba'e ,phāri'a'le,na. 'Gōc'-  
 Wait I well become first. Then not he well became. Die  
 e'na'ye'.

did he.

### Intonation.

175. Spoken language is a kind of music, and every language has its own "tune" or intonation, following certain rules as to rise and fall peculiar to itself.\* The language

\* One may speak a language grammatically perhaps more correctly than some of those whose mother-tongue it is; but if one has not acquired the intonation peculiar to the language one is, even with an otherwise correct rendering of the sounds, at once spotted as a foreigner. If on the other hand one has acquired the intonation, one is not felt as a stranger, even if one commits some grammatical blunders, if they are not too great howlers. It is not more than what many natives of the race do themselves. It is especially at this point that the test comes, whether one



“music” is made up of details, a number of tones, sometimes level, and otherwise gliding, either rising or falling.

A principal difference between song (which is the kind of music which it is natural to compare) and spoken language is that “in singing the voice generally dwells without change of pitch on each note, and leaps upwards or downwards to the next note, as quickly as possible, so that although there is no break, the intermediate glide is not noticed”, but “in speech the voice, only occasionally dwells on one note, and is constantly moving upwards and downwards from one note to the other, so that the different notes are simply points between which the voice is constantly gliding”. (Sweet, *Primer of Phonetics*, § 161).

This constant peculiarity of spoken language puts a divide between language and song. It is, however, more a difference in mode than in kind, and in certain conditions spoken language will come near to song, or take a form midway between ordinary language and song. Certain emotions find natural expression in level pitch. One may mention the pitch of invocation and of lamentation or weeping.\* The vocative interjections may also be mentioned.

176. One has to distinguish two kinds of intonation, that of the single word (by prof. Johan Storm called

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is able to speak a foreign language “like a native”, and very few are able to pass this test.

It is perhaps not an absolute necessity for being able to learn a foreign language properly that one has a musical ear. But a musical ear and a mimicking ability will generally be a good help in acquiring a foreign language. So is a common experience with us, and it is quite natural, as regards intonation, because there is such a close relationship between spoken language and music.

\* When a Santal woman gives expression to her grief over the death of a relative, she will always burst into singing.

*Tonelag*), and that of a combination of words and of sentences (by prof. Storm called *Tonefald*).

177. Before entering on a few details in connection with intonation it may be useful to state what is not met with in the language.

A system of tones like that found most developed in certain Chinese languages, but also met with, although less elaborate, in nearer, even Indian languages,—is not heard in Santali. The language has no need of distinguishing between words in this way.

178. Scandinavian learners of Santali should be careful not to use the so-called compound or dissyllabic intonation (Prof. Storm: *Tostavelsestonelaget*) which is so common in Norwegian and still more in Swedish (cf. the pronunciation of a word like *Timmer*, when it means timber, and the same written word when it means reins, or of *Jaeger*, when it is used meaning a hunter, or as a nom. propr.). Such intonation is not met with in ordinary spoken Santali.

It should, however, be remarked that something similar to this intonation may occasionally be heard when a person is trying to enumerate the names of a number of things. With this peculiar intonation the singular is always used, sometimes with an *eh* between the words. *E. g.*, *horo, eh jonḍra, eh gundli, eh guhum* (paddy, maize, gundli — a millet,—wheat). Here there is a falling (compound) intonation on the vowel of the first syllable, rising again on the second vowel. It somewhat reminds one of the “rolling accent” so common in parts of western Norway. It may be accidental, but it is very seldom that the writer has heard this kind of intonation with Santals.

The example just mentioned clearly demonstrates how intonation is influenced by the mind. One is in Santali

very frequently met by another kind of enumeration, a long string of words, all with the plural suffix *ko* added (to show the class, the indefinite, and often added to words which do not otherwise take the plural suffix). Here the intonation is simple and rising with the highest tone on *ko*. In this case the speaker apparently feels, as if the enumeration might go on indefinitely, whilst in the above mentioned case the speaker seems to be constantly trying to remember or questioning himself whether there is more to come, or whether he is done with it.

179. Stress and rising intonation generally go together. From what has been stated in the section on stress, it will be noted, that Santali has a large number of dissyllabic words with often scarcely perceptible difference in stress between the two syllables. A result of this is, that the intonation of such words ordinarily is fairly level. There seems, however, to be a tendency to rising towards or on the ultima.

A syllable with a checked consonant has always some stress; consequently such syllables will always have a rising intonation.

180. As regards the intonation of constructed language, the "sentence-melody" or tune, as it has been called, it is difficult with the means at disposal, that is, with words alone, to give more than a general idea. The subject is moreover so large and varied, that it will not be possible here to go into much detail.

It is necessary to make some allowance for the restrictions resulting from the above mentioned quality of the intonation of single words, and for the other peculiarities of agglutinating Santali, viz., for the way in which the language is divided up into stress-units, for the lack of conso-

nant conglomerations requiring special force to be pronounced, and for the division of the language into base-words, conveying the concept, and auxiliaries which furnish the needful to place the concept in concrete reality ( see paras 150, 151, 153. ).

All these peculiarities cannot do otherwise than to some extent influence the intonation, especially so as to lessen variation and to cause repetition of rise and fall.\* But making allowance for these, it may be said, that Santali follows the same laws as other languages.

181. Among the practical effects of the circumstances stated the following may be mentioned :- In ordinary unemotional language the base word (or what serves as such) has a higher tone than the immediately following auxiliaries, provided these are not to be especially emphasized, or that it is not a question.

Questions have in Santali often an intonation rising from the base word towards the end of the auxiliaries. In question and answer it is often so, that the question starts on a low tone, rising two or three tones, whilst the affirmative answer repeats the same word and construction, commencing with the last tone of the question, going down the same scale and ending on the first tone of the question.

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\*Santal music and songs might be mentioned as being to some extent analogous to Santali intonation. Their music is not much varied, but is full of repetitions. The same may be said of their songs. They have some melodies where the interval between the highest and lowest tones may be more than an octave ; but in the great number of their songs the variation is small.

Remembering this it may seem strange to call the Santals a musical people. Still they are so. An unmusical ear is very rare to find among them. They are easily trained to be very fair musicians. It might perhaps be said that what they at their present state of development naturally enjoy of music is the single tone or the sonorous sound. .

Other forms of intonation in questions are to have first a fall and then a rise to a higher pitch than that of the start, so that the auxiliary immediately following the base word may be one tone or a little more lower than this with a following rise of two or more tones towards the end of the construction. Especially when the question gives expression to surprise or reproof, the highest tone may be on the base with a constant fall towards the end. It is the principal part of a sentence which gets the higher tone.

182. The mental state of the speaker will always find expression; there is no principal difference in this respect between a Santal and others. Excitement, whether joy or anger, finds expression in high and varied, leaping up and down tones. A quiet unemotional state of mind, meditation, decision, finality, shows itself in a low, level tone. And so on. There is no need to go through the whole range here.\*

183. The voice-quality of the Santals must – following the names given by Sweet – be said to be something between

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\*It has been remarked, that the language of savage peoples is characterized by uncontrolled leaps of intonation, violent gesticulation and so on. The Santals must in this case be much advanced from the savage state. It is a characteristic trait of theirs to be retired and quiet and to avoid giving full expression to feelings, rather to be satisfied with giving a hint. Highflown oratory will nearly always pass over their heads. There is a vast difference in this respect between the Santals and the Hindus (Biharis and Bengalis, supposed to be much more civilized), living in the same country with them. Persons of these other races may often be seen and heard talking together, screaming, screeching, gesticulating, to all appearance in high dudgeon, so one may think they are just on the point of getting to blows, whilst it is in reality a friendly conversation on some quite impersonal subject. In the way of explanation it might be mentioned that the Santals are a musical race, whilst the others are much less so. When Santals become excited, they will also show this, but then frequently lose control of themselves. Exceptions to the common rule are, of course, met with. There may be some difference in the behaviour of the two sexes,



clear and dull. With men there may be more of a tendency towards the dull quality than is observed with women. The tendency towards nasality which many men show when singing, especially alone and a foreign tune, should perhaps not be taken as a proof of dullness.

The "voice" generally lies well forward in the mouth.†

From the detailed descriptions given of both vowels and consonants it will be noted, that the lips are not much protruded. The tongue is not kept in any special position as for instance in English.

As previously mentioned, all sounds are distinctly pronounced, both vowels and consonants; nothing is slurred over. It is a pleasure to observe, how the different sounds are articulated. One can so to say see the different sounds coming out of the mouth of many a speaker. Some, more especially women, have an exceptionally distinct articulation.

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†Men have generally a fairly deep voice. In singing barytone and bass voices are common. Women generally have a contralto voice, although, of course all kinds of voice may be heard.



“a” as pronounced in rua (fever).





“a” as pronounced in la (to dig).







“e” as pronounced in lē (melt).





"o" as pronounced in lo (lift fluid with an instrument).





“o” as pronounced in kol (the name of the bird).









\*P7-CCH-940\*